

4940



U.S. Army  
Environmental  
Center

**Jefferson Proving Ground  
South of the Firing Line**

**Final Asbestos Survey Summary Report**

**Volume III  
(Buildings 230 through 475)**

**September 1993**

**Rust Environment and Infrastructure  
Grand Junction, Colorado 81506**

**DISTRIBUTION STATEMENT A**

Approved for Public Release  
Distribution Unlimited

**Prepared for**

**U.S. Army Environmental Center  
Aberdeen Proving Ground, Maryland 21010-5401  
under  
Contract DAAA15-90-D-0007**

**20070424300**

**Jefferson Proving Ground  
South of the Firing Line**

**Final Asbestos Survey Summary Report**

**Volume III  
(Building 230 through Building 475)**

**September 1993**

**Rust Environment and Infrastructure  
Grand Junction, Colorado 81506**

**Prepared for**

**U.S. Army Environmental Center  
Aberdeen Proving Ground, Maryland 21010-5401  
under  
Contract DAAA15-90-D-0007**

This volume contains, for the following buildings, all or some of 1) a building summary, 2) a building drawing, 3) an Inspector's Room-by-Room Inventory of Suspect ACM, 4) an Inspector's Summary of Homogenous Areas of Suspect ACM, 5) a Report of Laboratory Analysis, 6) ACM Removal Expense and Response Action Recommendations, and 7) a Chain of Sample Custody form:

Building 230	Building 251	Building 271	Building 290	Building 312
Building 231	Building 252	Building 272	Building 291	Building 313
Building 232	Building 253	Building 273	Building 292	Building 314
Building 233	Building 254	Building 274	Building 293	Building 320
Building 234	Building 255	Building 275	Building 294	Building 321
Building 235	Building 256	Building 276	Building 295	Building 322
Building 236	Building 257	Building 277	Building 296	Building 323
Building 237	Building 258	Building 278	Building 297	Building 324
Building 238	Building 259	Building 279	Building 298	Building 325
Building 239	Building 260	Building 280	Building 299	Building 327
Building 240	Building 261	Building 281	Building 300	Building 329
Building 241	Building 262	Building 282	Building 301	Building 331
Building 242	Building 263	Building 283	Building 302	Building 333
Building 243	Building 264	Building 284	Building 303	Building 401
Building 244	Building 265	Building 285	Building 304	Building 403
Building 245	Building 266	Building 286	Building 305	Building 475
Building 246	Building 267	Building 287	Building 307	
Building 247	Building 268	Building 287A	Building 309	
Building 249	Building 269	Building 288	Building 310	
Building 250	Building 270	Building 289	Building 311	

## Abbreviations and Acronyms

ACM	asbestos-containing material
AHERA	Asbestos Hazard Emergency Response Act
AMOS	amosite
ANPHO	anthophyllite
BI	boiler insulation
CB	cementitious board (transite)
CF	cementitious flooring
CHRY	chrysotile
CP	ceiling plaster
CROCO	crocidolite
CT	ceiling tile
D	damaged
DI	duct insulation
EA	each
EPA	Environmental Protection Agency
EQ	equal to
F	feet
F	friable
FI	fitting insulation
FT	floor tile
G	good
GA	gasket materials
GT	greater than
H	high
HEPA	High Efficiency Particulate Absolute (air filters)
HVAC	heating, ventilation, and air-conditioning
I	inches
INSUL	insulation
JPG	Jefferson Proving Ground
L	low
LF	linear feet
LT	less than
M	moderate
M	miscellaneous material
MA	mastic
mag	magnesium carbonate
MM	miscellaneous materials
N	nonfriable
N/A	not applicable
N	nonasbestos-containing material
NF	nonfriable
NIST	National Institute of Standards and Technology
NOSUSP	no suspected asbestos-containing material
NS	not sampled
NVLAP	National Voluntary Laboratory Accreditation Program
O&M	operations and maintenance



### Abbreviations and Acronyms (continued)

PEL	permissible-exposure limit
PI	pipe insulation
PLM	polarized light microscopy
QA	quality assurance
QC	quality control
RM	room
RM	roofing materials
Rust E&I	Rust Environment and Infrastructure
S	surfacing material
S	significantly damaged
SF	square feet
SS	sprayed on surfacing
T	thermal system insulation
TI	tank insulation
TREACT	tremolite/actinolite
TSI	thermal system insulation
USAEC	U.S. Army Environmental Center
VP	vibration panel
WB	wallboard
WP	wall plaster
WT	wall tile
Y	friable
Y	asbestos-containing material
ZKY	no meaning; these are sampling lot identifiers used by the laboratory
ZLF	

# **BUILDING 230**

## **1.0 INTRODUCTION**

Building 230 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 11, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a loading dock.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>(12) -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 230			
PROJECT No.		DRAWN BY:	SCALE:	SHT.	OF
J3947.04		JKH	NTS		
		DATE:	FILE:	FIG.	
		06-23-93	3947AEIL.DGN		

# ACM Assessment Rating Summary

Damage Assessment	Building Number: 230	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1	LOADING PLATFORMS	Occupancy: Unoccupied
Physical:	NONE 0	Material Friability: NF 0
Water:	NONE 0	Occupant Accessibility to ACM: LOW 0
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: NONE 0
Pipe, Boiler, or Duct insulation:	NO 0	Air Stream/Plenum: PRESENT W/ NO 1
Type ACM:	NF, GOOD 0	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	< 1% 0	Occupied Facility: N/A 0
		Unoccupied Facility: N/A OR < 1% 0
	<b>Total 0</b>	<b>Total 0</b>
ACM Assessment Rating: F , no ACM		

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 230			RAILROAD SIDING/LOADING					
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
EXTERIOR	RAILROAD SIDING LOADING DOCK				<10			NO SUSPECT ACM MATERIALS

Touch: F = Friable NF=Nonfriable	Extent: Percent of Damage	Potential: For Damage L=Low M=Moderate H=High
Amount: SF=Square Feet LF=Linear Feet	Assess: G=Good D=Damaged S=Significantly Damaged	
Inspector: COMBS, KAREN	Inspection Date: 02/11/93	

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 230

RAILROAD SIDING/LOADING

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	RAILROAD SIDING	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 230

RAILROAD SIDING/LOADING

Location	Material	Cost Per	Expense	Response	Action
Code	Code Description	Friable Condition	Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 231**

## **1.0 INTRODUCTION**

Building 231 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 20, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 231 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Brick and concrete construction over concrete slab at grade, containing 4,352 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the central boiler plant.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.) walls and ceilings, acoustical ceiling panels/tiles, and vinyl tile or bare concrete floors.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of inspection, the building was being used as an optical data facility.



### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 400 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration.
- 90 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration.
- 80 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in fair to good condition with evidence of significant physical damage or material deterioration in Room 5 (women's rest room).
- 10 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Room 5 (women's rest room).
- 5,500 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

### 4.0 FUNCTIONAL SPACES

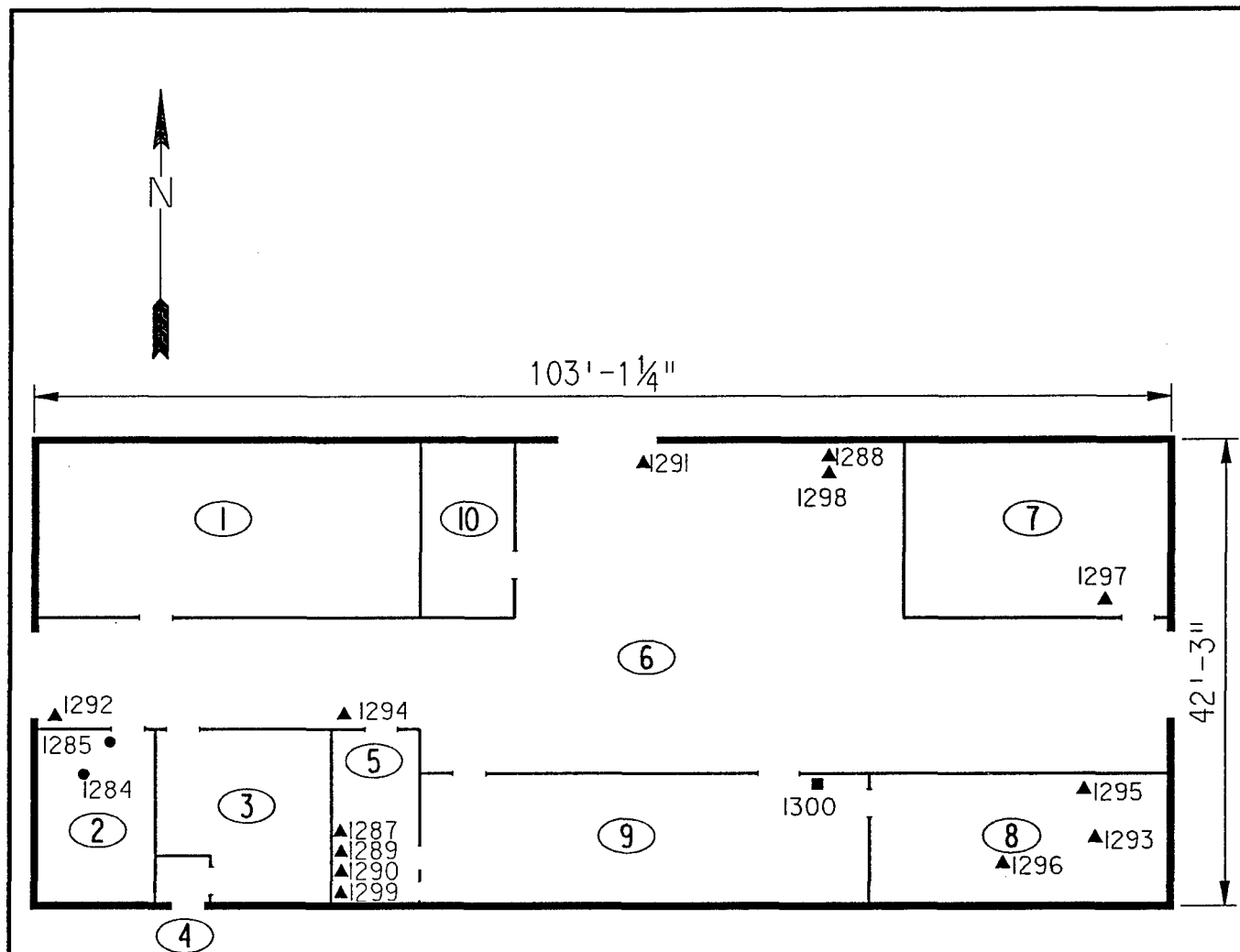
- #1 Entire Structure: **ACM Assessment Rating B**, there is significantly damaged friable ACM in an occupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of B calls for action as soon as possible. A special O&M program must be initiated immediately. Possible follow-up actions may include limiting access to the area and scheduling of removal during periods of low activity in the facility, not waiting for the normal repair and maintenance cycle.

### 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be fair to good with the noted exceptions above. Pipe insulations were observed to be friable, while other ACMs were nonfriable.

Areas of damage were identified in the ladies rest room (Room 5). Pipe insulation and fitting insulations need to be repaired immediately. The condition of the ACM and the occupancy and utilization of these areas by personnel present the potential for creating an airborne asbestos hazard.



# ASSUMED ASBESTOS ROOFING COMPONENTS

<p>LEGEND</p> <ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> <li>7008 -SAMPLE NUMBER (TYPICAL)</li> <li>⑫ -ROOM NUMBER (TYPICAL)</li> </ul>		<p>CLIENT: USAEC</p>		
		<p>LOCATION: Jefferson Proving Ground</p>		
		<p>TITLE: BUILDING 231 SAMPLE LOCATIONS</p>		
<p>PROJECT No. J3947.04</p>		<p>DRAWN BY: MLC</p>	<p>SCALE: NTS</p>	<p>SHT. OF</p>
		<p>DATE: 03-11-93</p>	<p>FILE: 3947AB36.DGN</p>	<p>FIG.</p>

# *ACM Assessment Rating Summary*

**Damage  
Assessment**

**Building Number:** 231

**Exposure  
Assessment**

<b>Functional Space Number:</b>	1	ENTIRE STRUCTURE	<b>Occupancy:</b>	Occupied
Physical:	MODERATE	3	Material Friability:	HIGH 3
Water:	NONE	0	Occupant Accessibility to ACM:	HIGH 4
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	HIGH 3
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	10-100 LF 1
Percent Asbestos:	> 51%	3	Occupied Facility:	< 9 1
			Unoccupied Facility:	N/A OR < 1% 0
		<b>Total</b> 11		<b>Total</b> 14
<b>ACM Assessment Rating:</b>	B			

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 231		OPTICAL DATA BLDG.							
Location Code	Use	Material Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	OFFICE	CT-01	F	460 SF	<10	G	L		
	OFFICE	FT-01	NF	460 SF	<10	G	M		
	OFFICE	PI-02	F	50 SF	<10	G	M		
	OFFICE	FI-02	F	10 EA	<10	G	M		
RM-02	OFFICE	CT-01	F	180 SF	<10	G	L		
	OFFICE	FT-01	NF	180 SF	<10	G	M		
RM-03	MENS RESTROOM	PI-02	F	60 LF	<10	G	M		
	MENS RESTROOM	FI-02	F	5 EA	<10	G	M		
RM-04	CLOSET	PI-02	F	15 LF	<10	G	M		
RM-05	WOMENS RESTROOM	PI-01	F	30 LF	>25	S	H	NEEDS IMMEDIATE REPAIR	
	WOMENS RESTROOM	FI-01	F	7 EA	>25	S	H		
	WOMENS RESTROOM	PI-02	F	30 LF	10	D	M		
	WOMENS RESTROOM	FI-02	F	4 EA	10	D	M		
RM-06	STORAGE/HALLWAY	FI-02	F	71 EA	<10	G	M		
	STORAGE/HALLWAY	PI-02	F	225 LF	<10	G	M		
	STORAGE/HALLWAY	PI-01	F	50 LF	10	D	M		
	STORAGE/HALLWAY	FI-01	F	3 EA	10	D	M		
RM-07	STORAGE	FT-02	NF	252 SF	<10	G	M		
	STORAGE	PI-02	F	20 LF	<10	G	M		
RM-08	STORAGE	-			<10			NO SUSPECT ACM MATERIALS	
RM-09	BREAK	WB-01	NF	420 SF	<10	G	M		
RM-10	STORAGE	-			<10			NO SUSPECT ACM MATERIALS	
RM-11	LOFT	-			<10			NO SUSPECT ACM MATERIALS	
EXTERIOR	ROOF	RM-01	NF	5500 SF	<10	G	L	SHINGLES, FELTS, AND TARS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 01/20/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

		Building Number: 231	OPTICAL DATA BLDG.						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CT-01	CEILING TILE	2' X 4' WHITE W/ PINHOLES & TRACKS	0.50	I	M	Y	N	1284	RM-02
FI-01	FITTING INSULATION	AIR CELL	1.00	I	T	Y	Y	1289 1290 1299	RM-05 RM-05 RM-05
FI-02		WHITE CHALKY	1.00	I	T	Y	Y	1294 1295 1296	RM-06 RM-11 RM-11
FT-01	FLOOR TILE	1' X 1' WHITE W/ GRAY	0.25	I	M	N	N	1285	RM-02
FT-02		1' X 1' GRAY W/WHITE	0.25	I	M	N	N	1297	RM-07
PI-01	PIPE INSULATION	AIR CELL	1.00	I	T	Y	Y	1286 1287 1288 1298	RM-05 RM-05 RM-06 RM-06
PI-02		WHITE CHALKY	1.00	I	T	Y	Y	1291 1292 1293	RM-06 RM-06 RM-11
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.25	I	M	N	ASSUMED		
WB-01	WALL BOARD	PAINTED DRYWALL	0.50	I	M	N	N	1300	RM-09

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP=No Suspected Asbestos Containing Material

Inspector: BRYAN, TERI

Inspection Date: 01/20/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
231	1284	021	AMOS	LT	1	ZGR
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1285	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1286	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	1287	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		45	
			CROCO	LT	1	
			TREACT	LT	1	
	1288	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1289	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		55	
			CROCO	LT	1	
			TREACT	LT	1	
	1290	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	1291	028	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1292	029	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1293	011	AMOS	LT	1	ZGQ
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
231	1294	012	AMOS	LT	1	ZGQ
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1295	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1296	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1297	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1298	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1299	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		25	
			CROCO	LT	1	
			TREACT	LT	1	
	1300	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 231

OPTICAL DATA BLDG.

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 SHINGLES, FELTS, AND TARS	N	G	5500 SF	N/A	N/A	Operations & Maintenance
RM-01	PI-02 WHITE CHALKY	Y	G	50 SF	N/A	N/A	Operations & Maintenance
	FI-02 WHITE CHALKY	Y	G	10 EA	N/A	N/A	Operations & Maintenance
RM-03	PI-02 WHITE CHALKY	Y	G	60 LF	N/A	N/A	Operations & Maintenance
	FI-02 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
RM-04	PI-02 WHITE CHALKY	Y	G	15 LF	N/A	N/A	Operations & Maintenance
RM-05	PI-01 AIR CELL	Y	S	30 LF	19.00 LF	570.00	Removal
	FI-01 AIR CELL	Y	S	7 EA	32.00 EA	224.00	Removal
	PI-02 WHITE CHALKY	Y	D	30 LF	19.00 LF	171.00	Repairs Followed by O&M
	FI-02 WHITE CHALKY	Y	D	4 EA	32.00 EA	38.40	Repairs Followed by O&M
RM-06	FI-02 WHITE CHALKY	Y	G	71 EA	N/A	N/A	Operations & Maintenance
	PI-02 WHITE CHALKY	Y	G	225 LF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL	Y	D	50 LF	19.00 LF	285.00	Repairs Followed by O&M
	FI-01 AIR CELL	Y	D	3 EA	32.00 EA	28.80	Repairs Followed by O&M
RM-07	PI-02 WHITE CHALKY	Y	G	20 LF	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	G	370 LF	\$ 0.00
PI	Pipe Insulation	D	80 LF	\$ 456.00
PI	Pipe Insulation	S	30 LF	\$ 570.00
FI	Fitting Insulation	G	86 EA	\$ 0.00
FI	Fitting Insulation	D	7 EA	\$ 67.20
FI	Fitting Insulation	S	7 EA	\$ 224.00
RM	Roofing Materials	G	5500 SF	\$ 0.00
				\$ 1317.20

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 1 of 2  
 Date 1-20-93

1. Project No. J3947.04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <del>231</del> No	7. Remarks
1284	Bulk Asbestos	1-20-93	231	Sample 1 NITALS
1285				B
1286				B
1287				B
1288				B
1289				B
1290				B
1291				B
1292				B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	1-20-93	Asbestos	<i>[Signature]</i> 1/25/93	1/25/93
				Sample Control

SEC Donohue, Inc.

Grand Junction, Colorado 81506

(303) 241-9612

## Page 2 of 2

Date 1-20-93

2. Project Name : JRG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume <del>In Liters</del> <i>Bbls No</i>	7. Remarks <i>Sample in 121</i>
1293	Bulk Analysis	1-20-93	231	B
1294				B
1295				B
1296				B
1297				B
1298				B
1299				B
1300				B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	12-20-93	<i>Asbestos</i>	<i>[Signature]</i>	1/25/43
				<i>Sample Control</i>

# **BUILDING 232**

## **1.0 INTRODUCTION**

Building 232 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 9, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 232 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade, containing 170 square feet.
- The building is unheated except for portable electric space heaters.
- The building is uninsulated.
- The building interior is finished with cement board wall and ceiling panels.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a safety control storage facility. Previously, this building was used as a guardhouse. The building was unoccupied.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 225 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

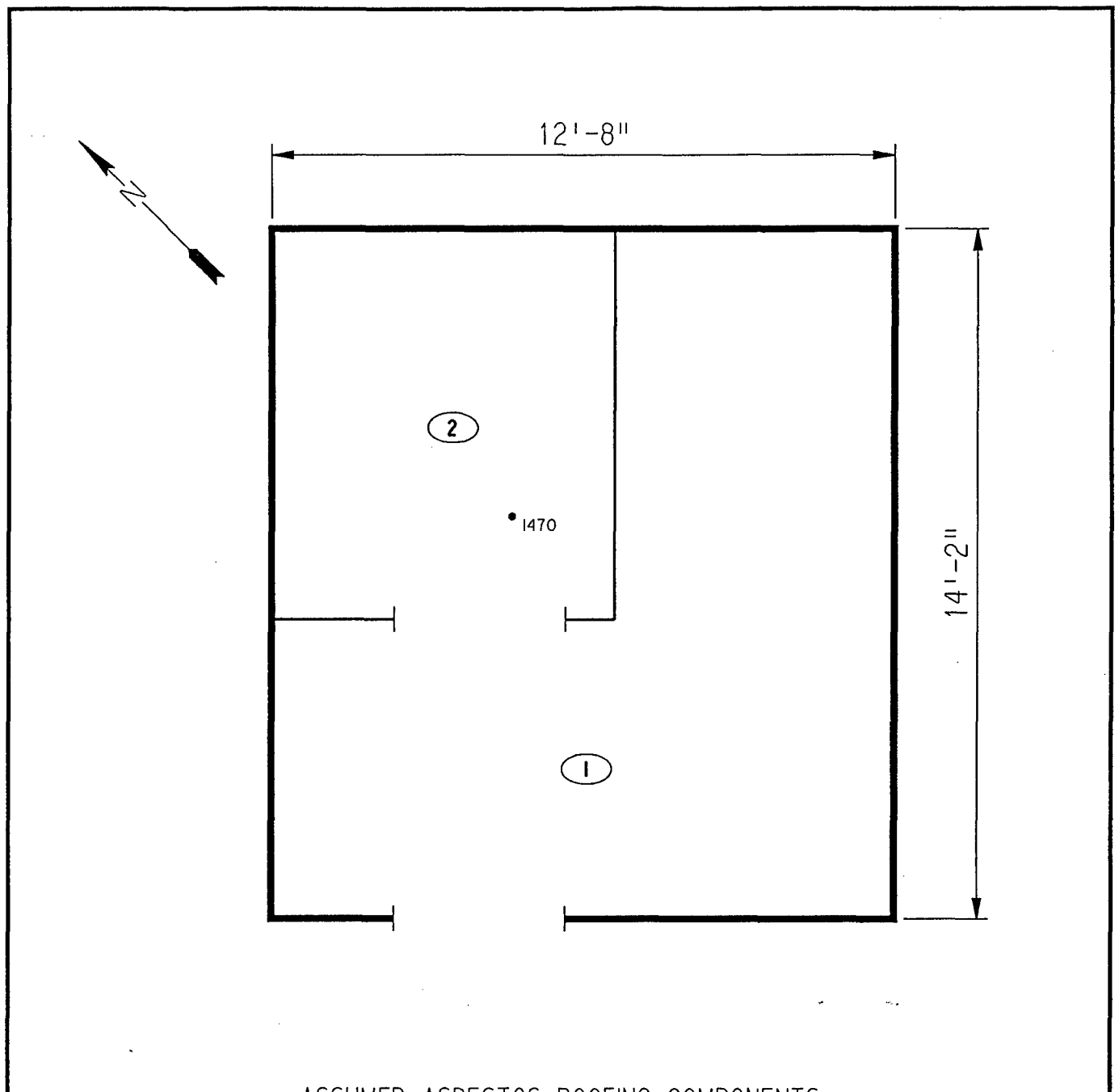
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



# ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 232 SAMPLE LOCATIONS			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY:	SCALE:	SHT. OF
		J3947.04	MLC	NTS	OF
			DATE:	FILE:	FIG.
			03-11-93	3947AB37.DGN	

### ACM Assessment Rating Summary

Damage  
Assessment

Building Number: 232

Exposure  
Assessment

Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	NONE	0
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<hr/> <hr/>		<hr/> <hr/>	
		Total	0	Total	0
ACM Assessment Rating:	F				

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	STORAGE	CB-01	NF	170 SF	<10	G	L		
RM-02	STORAGE	CB-01	NF	10 SF	<10	G	L		
EXTERIOR	ROOF	RM-01	NF	225 SF	<10	G	M	SHINGLES, FELTS, AND TARS. PHOTO TAKEN	

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 232

SAFETY CONTROL STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENTOUS BOARD	PAINTED CEILING BOARD	0.50	I	M	N	N	1470	RM-01
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP=No Suspected Asbestos Containing Material

Inspector: BRYAN, TERI

Inspection Date: 02/09/93



*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
232	1470	005	AMOS	LT	1	ZPQ
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 232

SAFETY CONTROL STORAGE

Location .....	Material.....	Cost Per	Expense	Response Action
Code      Code    Description	Friable Condition	Unit	Estimate	Recommendation
EXTERIOR RM-01 SHINGLES, FELTS, AND TARS	N      G      225 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	225 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
Date 2-9-93

1. Project No. J3947.04 2. Project Name 18th Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks
1470	Bulk Absorbent	2-9-93	232	B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	2-9-93	Absorbent	Man Dan DCL	2-15-93
				Small Rai

# **BUILDING 233**

## **1.0 INTRODUCTION**

Building 233 was inspected for ACM by Syd Pincock (Indiana Building Inspector License No. 197723123) of Rust E&I on January 20, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 106 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 150 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

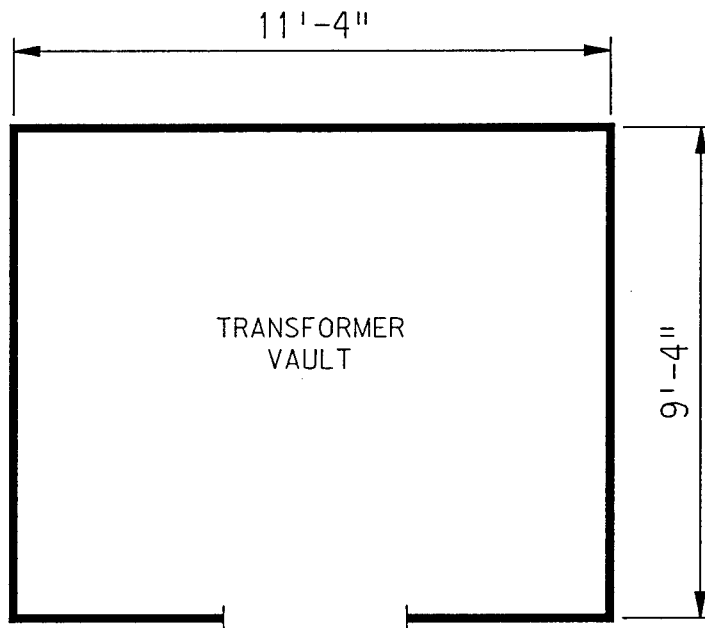
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS  
ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 233 BUILDING LAYOUT			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
		J3947.04	DATE: 03-II-93	FILE: 3947AB38.DGN	FIG.

### ACM Assessment Rating Summary

<b>Damage Assessment</b>		<b>Building Number:</b> 233	<b>Exposure Assessment</b>	
--------------------------	--	-----------------------------	----------------------------	--

<b>Functional Space Number: 1</b>			<b>ENTIRE BUILDING</b>			<b>Occupancy: Unoccupied</b>		
Physical:	NONE	0	Material Friability:	NF	0			
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0			
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2			
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0			
			Unoccupied Facility:	NF GOOD	1			
		<b>Total</b>	<b>0</b>			<b>Total</b>	<b>0</b>	
<b>ACM Assessment Rating: F</b>								

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	<2 SF	<10	G	L	POSSIBLE TRANSITE TRANSFORMER INSULATOR MOUNTING PANELS INSIDE ELECTRICAL BOXES	
EXTERIOR	ROOF	RM-01	NF	150 SF	<10	G	L	SHINGLES, FELTS, AND TARS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PINCOCK, SYD

Inspection Date: 01/20/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 233

TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	TRANSITE TRANSFORMER INSULATOR PANELS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/20/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 233

TRANSFORMER HOUSE

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	150 SF	N/A	N/A Operations & Maintenance
INTERIOR	MM-01	TRANSITE TRANSFORMER INSULATOR	N	G	<2 SF	N/A	N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	150 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 235**

## **1.0 INTRODUCTION**

Building 235 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 11, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a loading dock.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>⑫ -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 235			
		PROJECT No.	DRAWN BY:	SCALE:	SHT. OF
J3947.04	MLC	NTS			
	DATE:	FILE:	FIG.		
	03-II-93	3947AB40.DGN			

# ACM Assessment Rating Summary

Damage Assessment	Building Number:	235	Exposure Assessment
----------------------	------------------	-----	------------------------

Functional Space Number:	1	LOADING PLATFORM	Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF 0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE 0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO 1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF 0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A 0
			Unoccupied Facility:	N/A OR < 1% 0
		<b>Total</b> 0		<b>Total</b> 0
ACM Assessment Rating: F , no ACM				

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 235

RAILROAD SIDING/LOADING

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
EXTERIOR	RAILROAD SIDING/LOADING DOCK				< 10			NO SUSPECT ACM MATERIALS PHOTO TAKEN

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 235

RAILROAD SIDING/LOADING

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	RAILROAD SIDING	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 235

RAILROAD SIDING/LOADING

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



# **BUILDING 236**

## **1.0 INTRODUCTION**

Building 236 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 9, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 236 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction on a concrete slab at grade with metal deck and built-up asphalt roof.
- The building area is 3,178 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the central boiler plant.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.) walls and ceilings, and vinyl tile or bare concrete floors.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with asphalt-based roofing tars and felts.

## **2.2 Building Use**

At the time of inspection, the building was being used as an ammunition storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 10 linear feet of pipe lagging insulation. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 5 areas of packed "fitting" insulation on pipes otherwise insulated with lagging material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 600 square feet of vinyl floor tiles. These tiles were observed to be in fair condition with evidence of general physical damage or material deterioration.
- 700 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

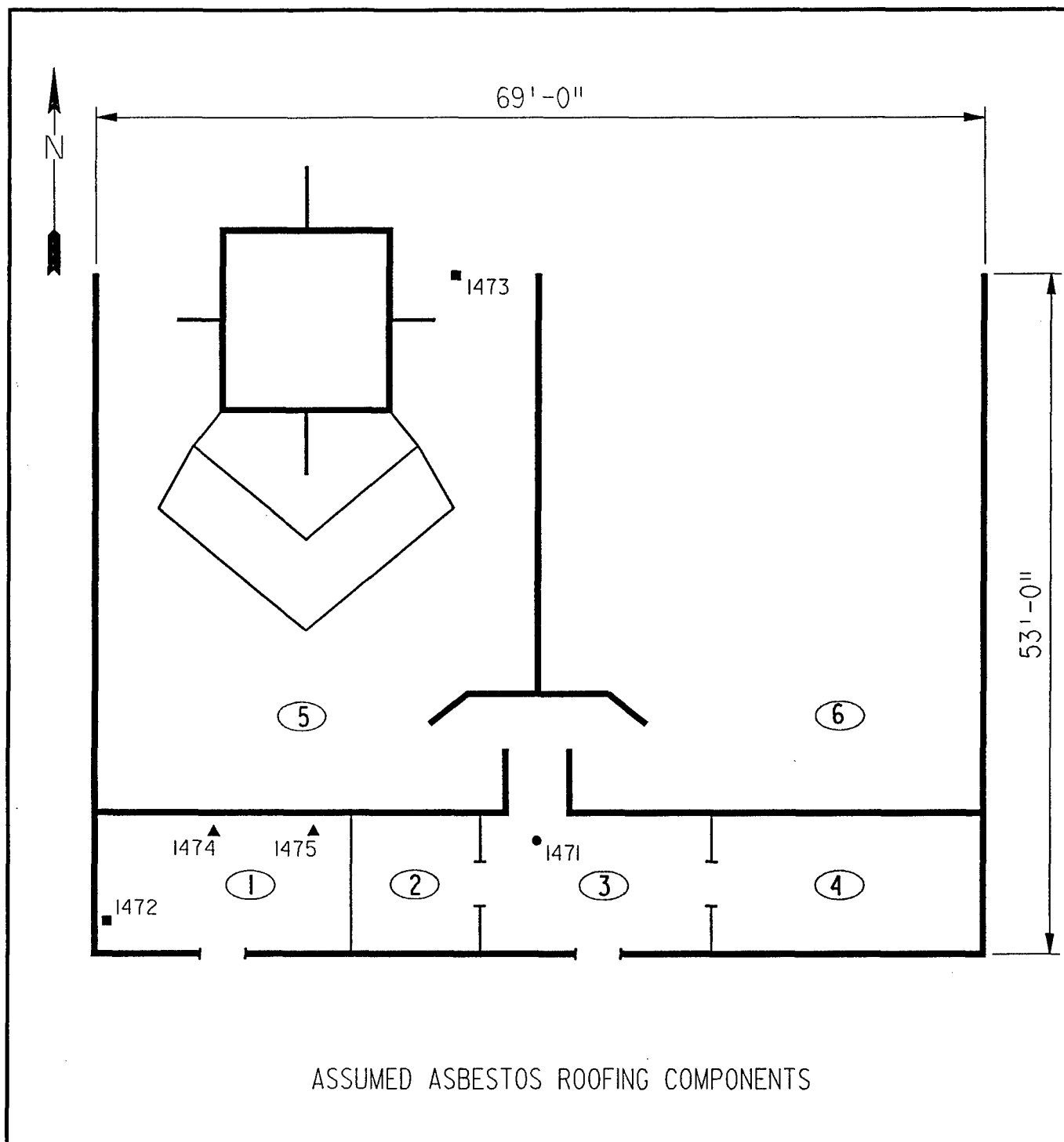
## **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating E**, the friable ACM in unoccupied area is in good condition.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of E calls for monitoring, while continuing a special O&M program. Steps must be taken to prevent damage to the ACM, and the condition of all ACM must be monitored frequently.

## **5.0 ADDITIONAL COMMENTS**

ACM pipe insulations were observed to be friable and in generally good condition. The remaining ACM was nonfriable.



LEGEND		CLIENT: USAEC	
<ul style="list-style-type: none"> <li>• -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> <li>7008 -SAMPLE NUMBER (TYPICAL)</li> <li>(12) -ROOM NUMBER (TYPICAL)</li> </ul>		LOCATION: Jefferson Proving Ground	
		TITLE: BUILDING 236 SAMPLE LOCATIONS	
PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
J3947.04	DATE: 03-11-93	FILE: 3947AB4LDGN	FIG.

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 236</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy: Unoccupied</b>		
Physical:	NONE	0	Material Friability:	LOW	1
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	> 51 %	3	Occupied Facility:	N/A	0
			Unoccupied Facility:	F GOOD	3
		<b>Total</b>	<b>8</b>		
				<b>Total</b>	<b>7</b>
<b>ACM Assessment Rating:</b>	<b>E</b>				

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 236		AMMO QUALITY FACILITY							
.....Location.....	.....Material.....								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	UTILITY	WB-01	NF	100 SF	<10	G	M		
	UTILITY	PI-01	F	10 LF	<10	G	M		
	UTILITY	FI-01	F	5 EA	<10	G	M		
RM-02	OFFICE	FT-01	NF	300 SF	10	D	H		
RM-03	HALLWAY	FT-01	NF	300 SF	10	D	H		
RM-04	STORAGE	WB-02	NF	120 SF	<10	G	L		
RM-05	STORAGE	WB-02	NF	120 SF	<10	G	L		
EXTERIOR	ROOF	RM-01	NF	700 SF	<10	G	L	SHINGLES, FELTS, AND TARS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 236

AMMO QUALITY FACILITY

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FI-01	FITTING INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1474	RM-01
FT-01	FLOOR TILE	GREEN	0.25	I	M	N	Y	1471	RM-03
PI-01	PIPE INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1475	RM-01
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.25	I	M	N	ASSUMED		
WB-01	WALLBOARD	DRYWALL, PAINTED	0.50	I	M	N	N	1472	RM-01
WB-02			0.50	I	M	N	N	1473	RM-04

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
236	1471	016	AMOS	LT	1	ZPQ
			ANPHO	LT	1	
			CHRY		4	
			CROCO	LT	1	
			TREACT	LT	1	
	1472	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1473	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1474	019	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	1475	020	AMOS		60	
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 236

AMMO QUALITY FACILITY

Location .....		Material.....			Cost Per	Expense	Response Action	
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	700 SF	N/A	N/A	Operations & Maintenance
RM-01	PI-01	WHITE CHALKY	Y	G	10 LF	N/A	N/A	Operations & Maintenance
	FI-01	WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
RM-02	FT-01	GREEN	N	D	300 SF	4.00 SF	360.00	Repairs Followed by O&M
RM-03	FT-01	GREEN	N	D	300 SF	4.00 SF	360.00	Repairs Followed by O&M

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	D	600 SF	\$ 720.00
PI	Pipe Insulation	G	10 LF	\$ 0.00
FI	Fitting Insulation	G	5 EA	\$ 0.00
RM	Roofing Materials	G	700 SF	\$ 0.00
				\$ 720.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



SEC Donohue, Inc.

743 Horizon Drive, Suite 240

**Grand Junction, Colorado 81506**

(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1

Date 2-9-93

1. Project No. 13947.04      2. Project Name JES Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters & Co. No.	7. Remarks Sampler Initial
1471	Bulk Asbestos	2-9-93	230	B
1472				B
1473				B
1474				B
1475				B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
[Signature]	2-9-93	Asbestos	Marian Dean DCL	2-15-93 [Signature] Re

# **BUILDING 237**

## **1.0 INTRODUCTION**

Building 237 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 237 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction on a concrete slab at grade containing 179 square feet.
- The building is finished with vinyl floor tiles.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of inspection, the building was being used as a rear area safety control storage facility. Previously, this building was a rear area guardhouse.

### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 5 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in poor condition with evidence of significant physical damage or material deterioration.
- 5 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in poor condition with evidence of significant physical damage or material deterioration.
- 120 square feet of 12" x 12" red and black vinyl floor tiles. These tiles were observed to be in poor condition with evidence of physical damage or material deterioration.
- 150 square feet of cement board ("Transite") roofing shingles. These shingles were observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.

### 4.0 FUNCTIONAL SPACES

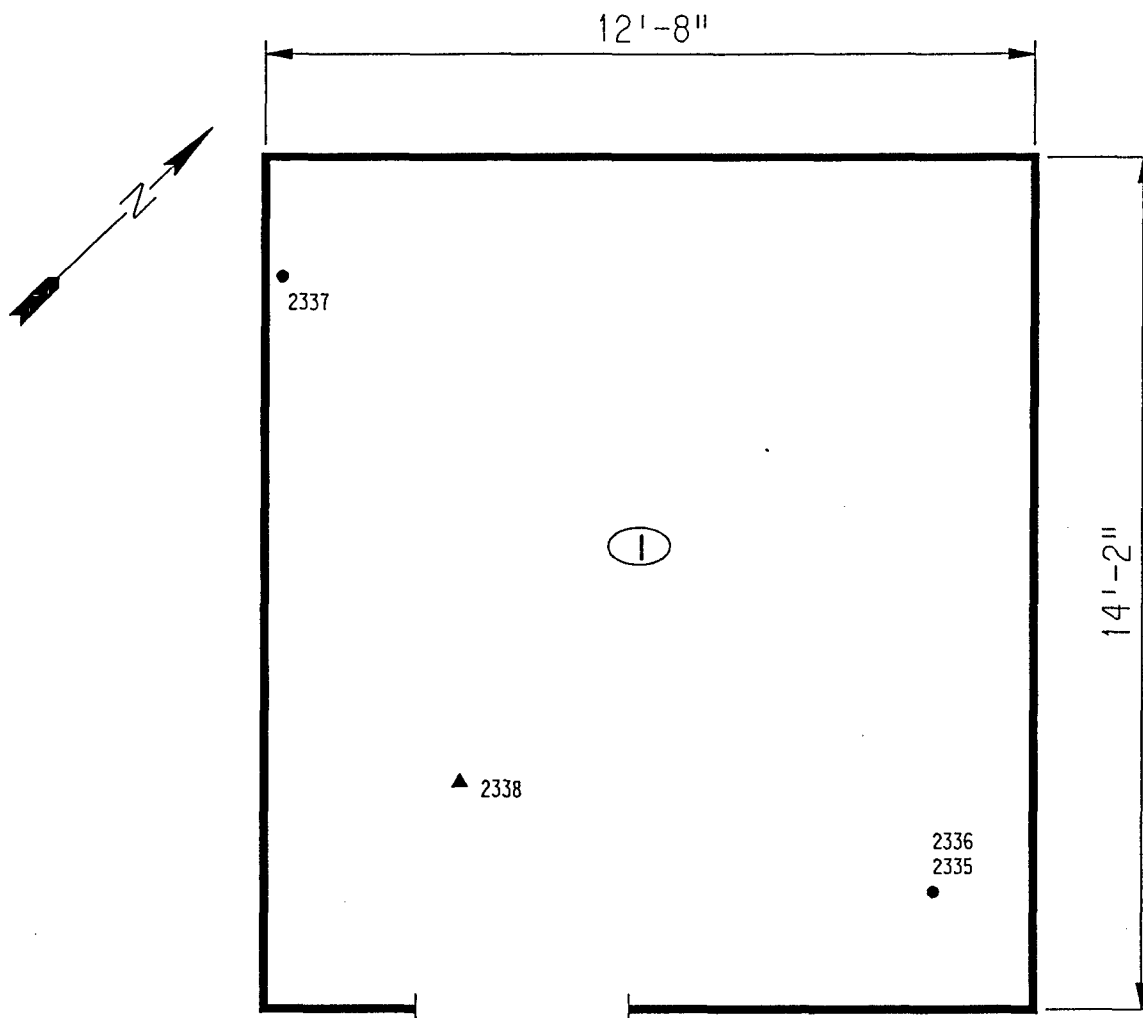
- #1 Entire Structure: **ACM Assessment Rating C**, there is significantly damaged friable ACM in an unoccupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

### 5.0 ADDITIONAL COMMENTS

Interior ACM was observed to be in significantly damaged condition. ACM pipe insulations were extremely friable. Interior ACM would need to be removed prior to safe reoccupation. Exterior ACM was in good condition and is nonfriable.

Access to the building's interior area needs to be controlled through locking doors and posting asbestos hazard warning signs in the doorways.



# LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- ⑫ -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 237  
SAMPLE LOCATIONS

PROJECT No.

J3947.04

DRAWN BY:

MLC

SCALE:

NTS

SHT. OF

DATE:

03-11-93

FILE:

3947AB42.DGN

FIG.

# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 237		Exposure Assessment
----------------------	----------------------	--	------------------------

Functional Space Number: 1    GUARD HOUSE			Occupancy: Unoccupied		
Physical:	HIGH	5	Material Friability:	HIGH	3
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	TSI NOT	1	Area of surface or damaged ACM:	10-100 LF	1
Percent Asbestos:	> 51 %	3	Occupied Facility:	N/A	0
			Unoccupied Facility:	F DAMAGED	5
	<u>Total</u>			<u>Total</u>	
ACM Assessment Rating: C	12			11	

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 237		SAFETY CONTROL STORAGE							
Code	Location Use	Code	Material Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	INTERIOR GUARD HOUSE	FT-01	NF	120 SF	25	D	L	CRACKED AND BUCKLING JACKET FALLING OFF, SIGNIFICANT DAMAGE JACKET OFF AND SPLITTING	
	INTERIOR GUARD HOUSE	PI-01	F	5 LF	>25	S	H		
	INTERIOR GUARD HOUSE	FI-01	F	5 EA	>25	S	M		
EXTERIOR	GUARD HOUSE	RM-01	NF	150 SF	<10	G	L	SHINGLES, FELTS, AND TARS	

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 237

SAFETY CONTROL STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FI-01	FITTING INSULATION	GRAY CRUMBLY	1.00	I	T	Y	Y	2338	RM-01
FT-01	FLOOR TILE	12" X 12" RED AND BLACK	0.25	I	M	N	Y	2335 2336	RM-01 RM-01
PI-01	PIPE INSULATION	WHITE MAG	1.00	I	T	Y	Y	2337	RM-01
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
237	2335	015	AMOS	LT	1	ZLZ
			ANPHO	LT	1	
			CHRY		32	
			CROCO	LT	1	
			TREACT	LT	1	
	2336	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	2337	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	2338	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



## ACM Corrective Action Expense and Response Action Recommendations

Building: 237

SAFETY CONTROL STORAGE

Location .....		Material.....		Cost Per Expense		Response Action		
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	150 SF	N/A	N/A	Operations & Maintenance
RM-01	FT-01	12" X 12" RED AND BLACK	N	D	120 SF	4.00 SF	144.00	Repairs Followed by O&M
	PI-01	WHITE MAG	Y	S	5 LF	19.00 LF	95.00	Removal
	FI-01	GRAY CRUMBLY	Y	S	5 EA	32.00 EA	160.00	Removal

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	D	120 SF	\$ 144.00
PI	Pipe Insulation	S	5 LF	\$ 95.00
FI	Fitting Insulation	S	5 EA	\$ 160.00
RM	Roofing Materials	G	150 SF	\$ 0.00
				\$ 399.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
Date 2-3-93

1. Project No. J3947.04 2. Project Name JPG Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters & Count	7. Remarks <i>Sampler Initials</i>
2335	Bulk Asbestos	2-3-93	237	KAC
2336				KAC
2337				KAC
2338				KAC
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
<i>[Signature]</i>	2-3-93	Asbestos	<i>[Signature]</i>	2/5/93 <i>[Signature]</i>

Company Name	Date	Amount
<del>036133A</del>	2/5/93	8000.00
<del>036133A</del>	2/5/93	8000.00

# **BUILDING 238**

## **1.0 INTRODUCTION**

Building 238 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 953 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- Less than 2 square feet of cement board ("Transite) electric panel transformer insulators. These insulators were inaccessible for inspection, but were assumed to be in satisfactory condition.

#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was suspected to be present, but was inaccessible for inspection. This type of ACM is typically nonfriable and not considered to be a significant environmental concern.

BUILDING OUTLINE NOT AVAILABLE

ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> 7008 -SAMPLE NUMBER (TYPICAL) <b>(12)</b> -ROOM NUMBER (TYPICAL)		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 238			
PROJECT No.		DRAWN BY:	SCALE:	SHT. OF	
J3947.04		MLC	NTS		
		DATE:	FILE:	FIG.	
		03-11-93	3947AB43.DGN		

# *ACM Assessment Rating Summary*

**Damage  
Assessment**

**Building Number:** 238

**Exposure  
Assessment**

**Functional Space Number:** 1 ENTIRE BUILDING

**Occupancy:** Unoccupied

Physical: NONE 0  
 Water: NONE 0  
 Sprayed-on or Trowelled-on: NO MAINT. 0  
 Pipe, Boiler, or Duct insulation: NO 0  
 Type ACM: NF, GOOD 0  
 Percent Asbestos: < 1% 0

Material Friability: NF 0  
 Occupant Accessibility to ACM: LOW 0  
 Activity/Use: NONE 0  
 Air Stream/Plenum: ACM OCCASIONAL 2  
 Area of surface or damaged ACM: < 10 LF 0  
 Occupied Facility: N/A 0  
 Unoccupied Facility: NF GOOD 1

**Total** 0

**Total** 0

**ACM Assessment Rating:** F

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 238				SAFETY HOUSE				
.....Location..... Code	Use	.....Material..... Code	Touch	Amount	Extent	Assess	Potential	Notes

INT/EXT	SAFETY HOUSE				<10			ALL CONCRETE CONSTRUCTION, THREE ELECTRICAL BOXES THAT MAY CONTAIN ACM MATERIALS. NO OTHER SUSPECT ACM MATERIALS
---------	--------------	--	--	--	-----	--	--	---

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 238

SAFETY HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFETY HOUSE	NO ACM MATERIALS	0.00			N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93



ACM Corrective Action Expense and Response Action Recommendations

Building: 238

SAFETY HOUSE

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 239**

## **1.0 INTRODUCTION**

Building 239 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197323123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade with asphalt roofing tars and felts.
- The building area is 693 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as an observation tower/safe house.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- Less than 2 square feet of cement board ("Transite) electric panel transformer insulators. These insulators were inaccessible for inspection, but were assumed to be in satisfactory condition.

- 500 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

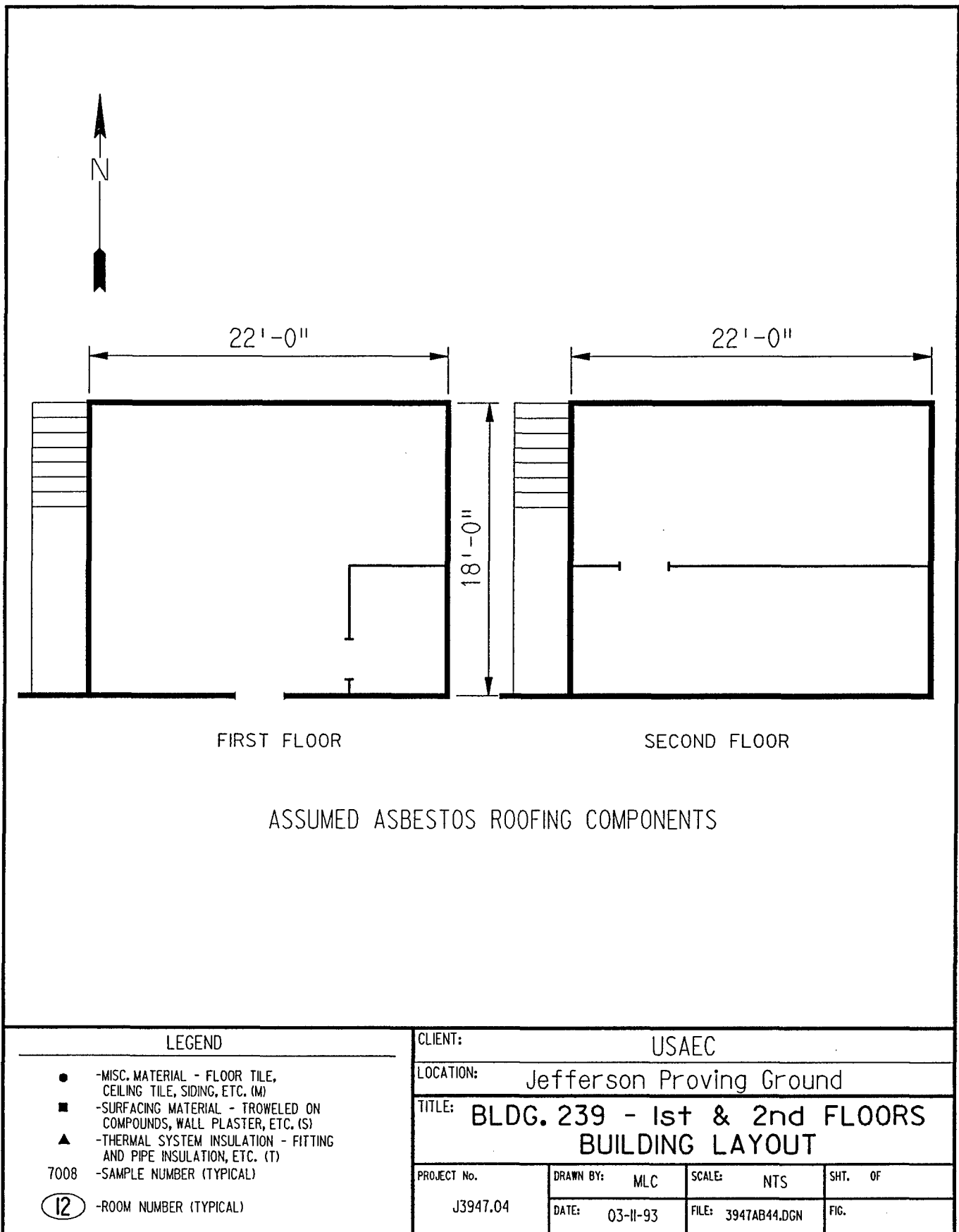
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was inaccessible for inspection. These ACM are typically nonfriable and not considered to be a significant environmental concern.



# *ACM Assessment Rating Summary*

Damage Assessment			Building Number: 239		Exposure Assessment	
Functional Space Number: 1			ENTIRE BUILDING		Occupancy: Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0	
			Unoccupied Facility:	NF GOOD	1	
		Total	0			
ACM Assessment Rating: F					Total	0

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	SAFE SHELTER				<10			ELECTRICAL COMPONENTS MAY CONTAIN ACM MATERIALS. NO OTHER SUSPECT ACM MATERIALS.	
EXTERIOR	SAFE SHELTER ROOF	RM-01	NF	500 SF	<10	G	L	TARS, AND FELTS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 239

SAFE SHELTER

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 239

SAFE SHELTER

Location .....		Material.....			Cost Per	Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
		EXTERIOR RM-01 TARS, AND FELTS	N	G	500 SF	N/A	N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	500 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



# **BUILDING 240**

## **1.0 INTRODUCTION**

Building 240 was inspected for ACM by Teri Bryan (Indiana Inspector License No. 197323123) of Rust E&I on February 9, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 240			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)				
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 06-23-93	FILE: 3947AE09.DGN	FIG.

# ACM Assessment Rating Summary

Damage Assessment			Building Number: 240		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1%	0	
		Total	0	Total		
ACM Assessment Rating:		F , no ACM				

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 240

SAFE SHELTER

.....Location..... Code          Use	.....Material..... Code  Touch  Amount	Extent	Assess	Potential	Notes
INT/EXT	SAFE SHELTER	<10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
      NF=Nonfriable

Amount: SF=Square Feet  
      LF=Linear Feet

Extent: Percent of Damage

Assess: G = Good  
      D = Damaged  
      S = Significantly Damaged

Potential: For Damage  
      L = Low  
      M = Moderate  
      H = High

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 240

SAFE SHELTER

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE SHELTER	NO SUSPECT ACM MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 240

SAFE SHELTER

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 241**

## **1.0 INTRODUCTION**

Building 241 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 27, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 241 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction with asphalt-based roofing tars and felts on concrete slab at grade containing 1,179 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the central boiler plant.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.) and cement board ("Transite") walls and ceilings, acoustical ceiling panels/tiles, and vinyl floor tiles.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as the weather station and was occupied by less than 10 people per day.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 50 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 14 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 6 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration. There were open ended insulation jackets in Room 4, the rest room.
- 3 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 450 square feet of cement board ("Transite") interior panels. These panels were observed to be in generally good condition with minor areas of isolated damage.
- 1,250 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

### **4.0 FUNCTIONAL SPACES**

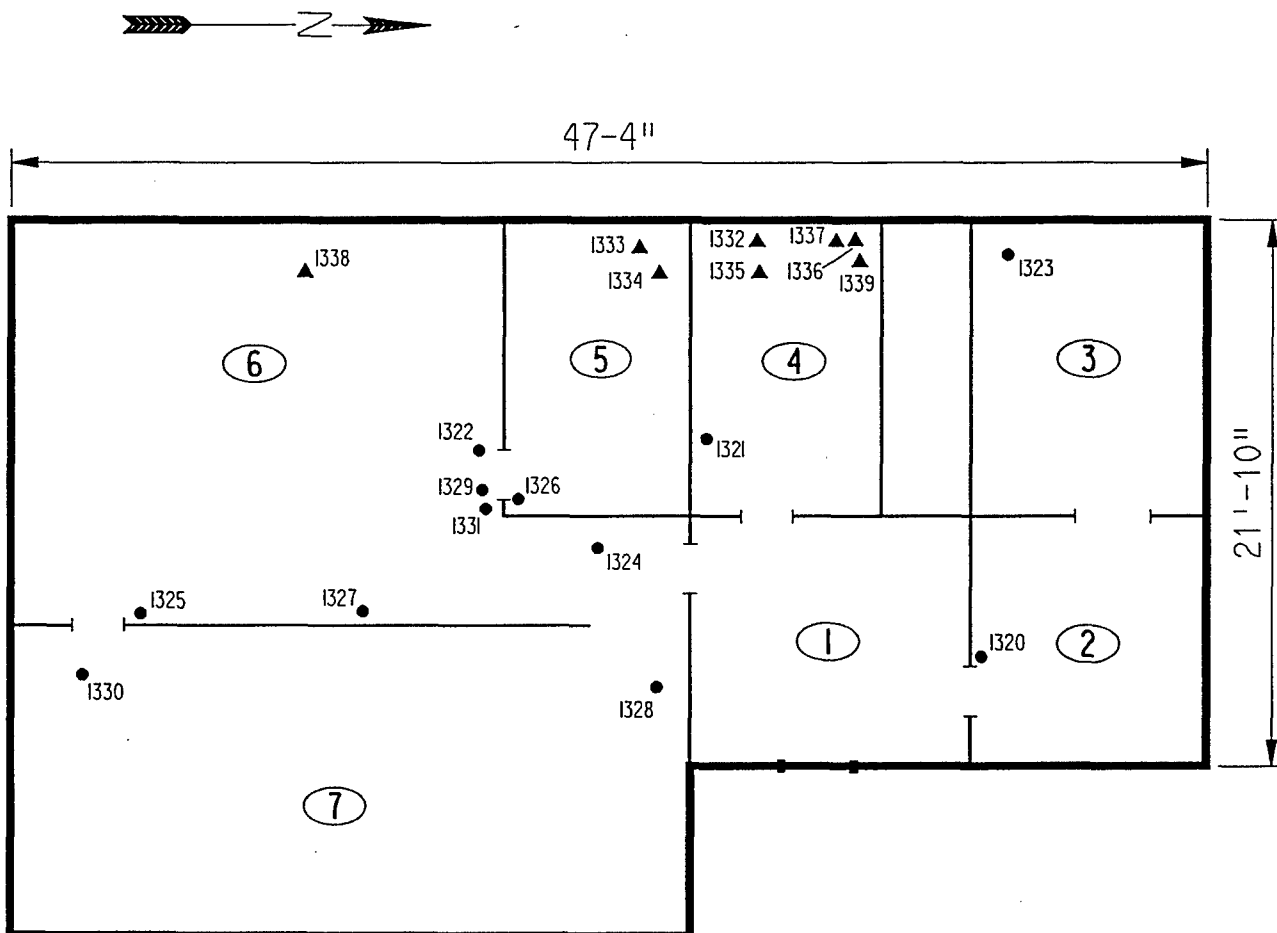
- #1 Rooms 1-7: ACM Assessment Rating D, most of the friable ACM is above the dropped ceiling.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment of D calls for repair and initiation of a special O&M program. Damaged areas should be repaired, where "repair" means returning damaged ACM to an undamaged condition to contain fiber release.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. Pipe insulations were observed to be friable, while other ACMs were nonfriable.





ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 241 SAMPLE LOCATIONS			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
		J3947.04	DATE: 03-11-93	FILE: 3947AB46.DGN	FIG.

# ACM Assessment Rating Summary

Damage  
Assessment

Building Number: 241

Exposure  
Assessment

Functional Space Number: 1			ROOM 1-7 AND DOME			Occupancy: Occupied		
Physical:	MINIMAL	1	Material Friability:	MODERATE	2			
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	MODERATE	2			
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL	2			
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	> 51%	3	Occupied Facility:	< 9	1			
			Unoccupied Facility:	N/A OR < 1%	0			
		<b>Total</b>	<b>9</b>			<b>Total</b>	<b>7</b>	
ACM Assessment Rating: D								

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 241		WEATHER STATION							
Location.....	Material.....								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	ENTRANCE ENTRANCE	FT-01	NF	110 SF	<10	G	M	TOTAL CB-01 FOR THE ENTIRE BUILDING IS 450 SF. AMOUNTS WERE DIVIDED EQUALLY BETWEEN 5 ROOMS	
		CB-01	NF	90 SF	<10	G	L		
RM-02	OFFICE OFFICE	CB-01	NF	90 SF	<10	G	L		
		FT-01	NF	80 SF	<10	G	M		
RM-03	EQUIPMENT EQUIPMENT	FT-01	NF	80 SF	<10	G	M		
		CB-01	NF	90 SF	<10	G	M		
RM-04	RESTROOM	CB-01	NF	90 SF	<10	G	M	OPEN ENDS	
	RESTROOM	FT-01	NF	80 SF	<10	G	M		
	RESTROOM	PI-01	F	6 LF	10	D	M		
	RESTROOM	PI-02	F	10 LF	<10	G	M		
	RESTROOM	FI-02	F	4 EA	<10	G	M		
	RESTROOM	FI-01	F	3 EA	<10	G	M		
RM-05	STORAGE	FT-02	NF	70 SF	<10	G	M	TOTAL WB-01 FOR ENTIRE BUILDING IS 990 SF. ABOVE DROP CEILING	
	STORAGE	CT-01	F	70 SF	<10	G	M		
	STORAGE	CB-01	NF	90 SF	<10	G	M		
	STORAGE	WB-01	NF	330 SF	<10	G	M		
	STORAGE	PI-02	F	20 LF	<10	G	M		
	STORAGE	FI-02	F	5 EA	<10	G	M		
RM-06	OFFICE	FT-02	NF	210 SF	<10	G	M	ABOVE DROP CEILING	
	OFFICE	CT-01	F	210 SF	<10	G	M		
	OFFICE	WB-01	NF	330 SF	<10	G	M		
	OFFICE	PI-02	F	20 LF	<10	G	M		
	OFFICE	FI-02	F	5 EA	<10	G	M		
RM-07	OFFICE	FT-02	NF	490 SF	<10	G	M		
	OFFICE	CT-01	F	490 SF	<10	G	M		
	OFFICE	WB-01	NF	330 SF	<10	G	M		
RM-08	DOVE	-			<10			NO SUSPECT ACM MATERIALS	
EXTERIOR	ROOF	RM-01	NF	1250 SF	<10	G	L	TARS, AND FELTS	

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: BRYAN, TERI

Inspection Date: 01/27/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 241			WEATHER STATION						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENT BOARD	WALL BOARD PAINTED	0.50	I	M	N	Y	1322 1323 1324	RM-06 RM-03 RM-07
CT-01	CEILING TILE	2' X 2' WHITE WITH PINHOLES AND TRACKS	0.50	I	M	Y	N	1327  1328	RM-06  RM-07
FI-01	FITTING INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1335	RM-04
FI-02			1.00	I	T	Y	Y	1334 1336 1337	RM-05 RM-04 RM-04
FT-01	FLOOR TILE	12" X 12" GREEN GEOMETRIC DESIGN	0.25	I	M	N	N	1320  1321	RM-02  RM-04
FT-02		12" X 12" GRAY W/WHITE STREAKS	0.25	I	M	N	N	1325  1326	RM-06  RM-05
PI-01	PIPE INSULATION	AIRCELL	1.00	I	T	Y	Y	1332	RM-04
PI-02		WHITE CHALKY	1.00	I	T	Y	Y	1333 1338 1339	RM-05 RM-06 RM-04
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		
WB-01	WALLBOARD	DRYWALL PAINTED	0.50	I	M	N	N	1331 1329 1330	RM-06 RM-06 RM-07

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: BRYAN, TERI

Inspection Date: 01/27/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
241	1320	029	AMOS	LT	1	ZKR
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1321	030	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1322	031	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1323	032	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		3	
			CROCO	LT	1	
			TREACT	LT	1	
	1324	033	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		55	
			CROCO	LT	1	
			TREACT	LT	1	
	1325	034	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1326	035	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1327	036	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1328	037	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1329	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRYIS=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
241	1330	021	AMOS	LT	1	ZKR
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1331	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1332	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	1333	024	AMOS		40	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	1334	025	AMOS		20	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	1335	026	AMOS		30	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	1336	027	AMOS		30	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	1337	028	AMOS		30	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	1338	017	AMOS		20	ZKV
			ANPHO	LT	1	
			CHRY		20	
			CROCO	LT	1	
			TREACT	LT	1	
	1339	018	AMOS		20	
			ANPHO	LT	1	
			CHRY		20	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
241	1339	018	TREACT	LT	1	ZKV

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRYS=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 241		WEATHER STATION					
Location .....	Material.....	Cost Per Expense Response Action					
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 TARS, AND FELTS	N	G	1250 SF	N/A	N/A	Operations & Maintenance
RM-01	CB-01 WALL BOARD PAINTED	N	G	90 SF	N/A	N/A	Operations & Maintenance
RM-02	CB-01 WALL BOARD PAINTED	N	G	90 SF	N/A	N/A	Operations & Maintenance
RM-03	CB-01 WALL BOARD PAINTED	N	G	90 SF	N/A	N/A	Operations & Maintenance
RM-04	CB-01 WALL BOARD PAINTED	N	G	90 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIRCELL	Y	D	6 LF	19.00 LF	34.20	Repairs Followed by O&M
	PI-02 WHITE CHALKY	Y	G	10 LF	N/A	N/A	Operations & Maintenance
	FI-02 WHITE CHALKY	Y	G	4 EA	N/A	N/A	Operations & Maintenance
	FI-01 WHITE CHALKY	Y	G	3 EA	N/A	N/A	Operations & Maintenance
RM-05	CB-01 WALL BOARD PAINTED	N	G	90 SF	N/A	N/A	Operations & Maintenance
	PI-02 WHITE CHALKY	Y	G	20 LF	N/A	N/A	Operations & Maintenance
	FI-02 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
RM-06	PI-02 WHITE CHALKY	Y	G	20 LF	N/A	N/A	Operations & Maintenance
	FI-02 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	G	50 LF	\$ 0.00
PI	Pipe Insulation	D	6 LF	\$ 34.20
FI	Fitting Insulation	G	17 EA	\$ 0.00
RM	Roofing Materials	G	1250 SF	\$ 0.00
CB	Cementous Board	G	450 SF	\$ 0.00
				\$ 34.20

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

## Page 1 of 3

Date 1-26-93

1. Project No. J3947.04

2. Project Name	JPG	Task Order	4
-----------------	-----	------------	---

### Task On

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Began No	7. Remarks Sampler Initials
1320	Bulk Asbestos	1-26-93	241	B
1321				B
1322				B
1323				B
1324				B
1325				B
1326				B
1327				B
1328				B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	1-26-93	Asbestos	<i>[Signature]</i> SBA	2/1/93
Surrender Certificate				

770

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 2 of 3  
Date 1-26-93

1. Project No. J3947.64      2. Project Name JPG Task Order 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Bux No	7. Remarks Samplers In file
1329	Bulk Asbestos	1-26-93	241	B
1330				B
1331				B
1332				B
1333				B
1334				B
1335				B
1336				B
1337				B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
	1-26-93	Asbestos	836 BBA	2/1/93

SEC Donohue, Inc.

Grand Junction, Colorado 81506

(303) 241-9612

## Page 3 of 3

Date 1-26-93

1. Project No. J3947.04

2. Project Name JP6 Task Order 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters B.D.G No.	7. Remarks Samplers Initials
1338	Bulk <del>Airway</del> Asbestos	1-26-93 ↓	241 ↓	B
1339	↓	↓	↓	B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
[Signature]	1-26-93	Asbestosis	R.F.A.B.W. [Signature]	2-1-93 San Jose County

# **BUILDING 242**

## **1.0 INTRODUCTION**

Building 242 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 181 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- Less than 2 square feet of cement board ("Transite) electric panel transformer insulators. These insulators were inaccessible for inspection, but were assumed to be in satisfactory condition.

#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was inaccessible for inspection. This ACM is typically nonfriable and not considered to be a significant environmental concern.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>12 -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 242			
PROJECT No.		DRAWN BY: MLC	SCALE: NTS	SHT. OF	
J3947.04		DATE: 03-16-93	FILE: 3947AB47.DGN	FIG.	

# *ACM Assessment Rating Summary*

**Damage  
Assessment**

**Building Number: 242**

**Exposure  
Assessment**

Functional Space Number: 1			SAFE SHELTER			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0			
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0			
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2			
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A	0			
			Unoccupied Facility:	NF GOOD	1			
		Total	0			Total	0	
ACM Assessment Rating: F								

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 242				SAFE SHELTER				
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE SHELTER				<10			ELECTRICAL BOXES MAY CONTAIN ACM. NO OTHER SUSPECT ACM MATERIALS

Touch: F = Friable NF=Nonfriable	Extent: Percent of Damage	Potential: For Damage L=Low M=Moderate H=High
Amount: SF=Square Feet LF=Linear Feet	Assess: G=Good D=Damaged S=Significantly Damaged	
Inspector: COMBS, KAREN		Inspection Date: 02/04/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 242		SAFE SHELTER						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)	
	SAFE SHELTER	ELECTRICAL MATERIALS	0.00			N	ASSUMED			

Units: I=Inches  
F=Feet

Friable: Y=Friable  
N=Nonfriable

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 242

SAFE SHELTER

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 243**

## **1.0 INTRODUCTION**

Building 243 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 3-4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 243 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction on concrete slab at grade with built-up asphalt-based roof.
- The building area is 1,908 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the central boiler plant.
- The building interior is finished with cement board ("Transite") walls and ceilings, and vinyl floor tiles.
- No fireproofing or other structural coatings were observed.

## **2.2 Building Use**

At the time of inspection, the building was not being used. Previously, this building was used as an ammunition storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 21 areas of packed "fitting" insulation on pipes otherwise insulated with "horse hair" material. This insulation was observed to be in poor condition with evidence of physical damage or material deterioration throughout the building.
- 175 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in poor condition with evidence of physical damage or material deterioration throughout the building.
- 49 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in poor condition with evidence of physical damage or material deterioration throughout the building.
- 63 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in poor condition with evidence of physical damage or material deterioration throughout the building.
- 19 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in poor condition with evidence of physical damage or material deterioration throughout the building.
- 105 linear feet of felt-wrap pipe insulation. This insulation was observed to be in poor condition with evidence of physical damage or material deterioration throughout the building.
- 21 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. This insulation was observed to be in poor condition with evidence of physical damage or material deterioration throughout the building.
- 300 square feet of cement board ("Transite") interior panels siding. These panels were observed to be in generally good condition with minor areas of isolated damage.
- 2,000 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition. These insulators were observed to be in good condition.

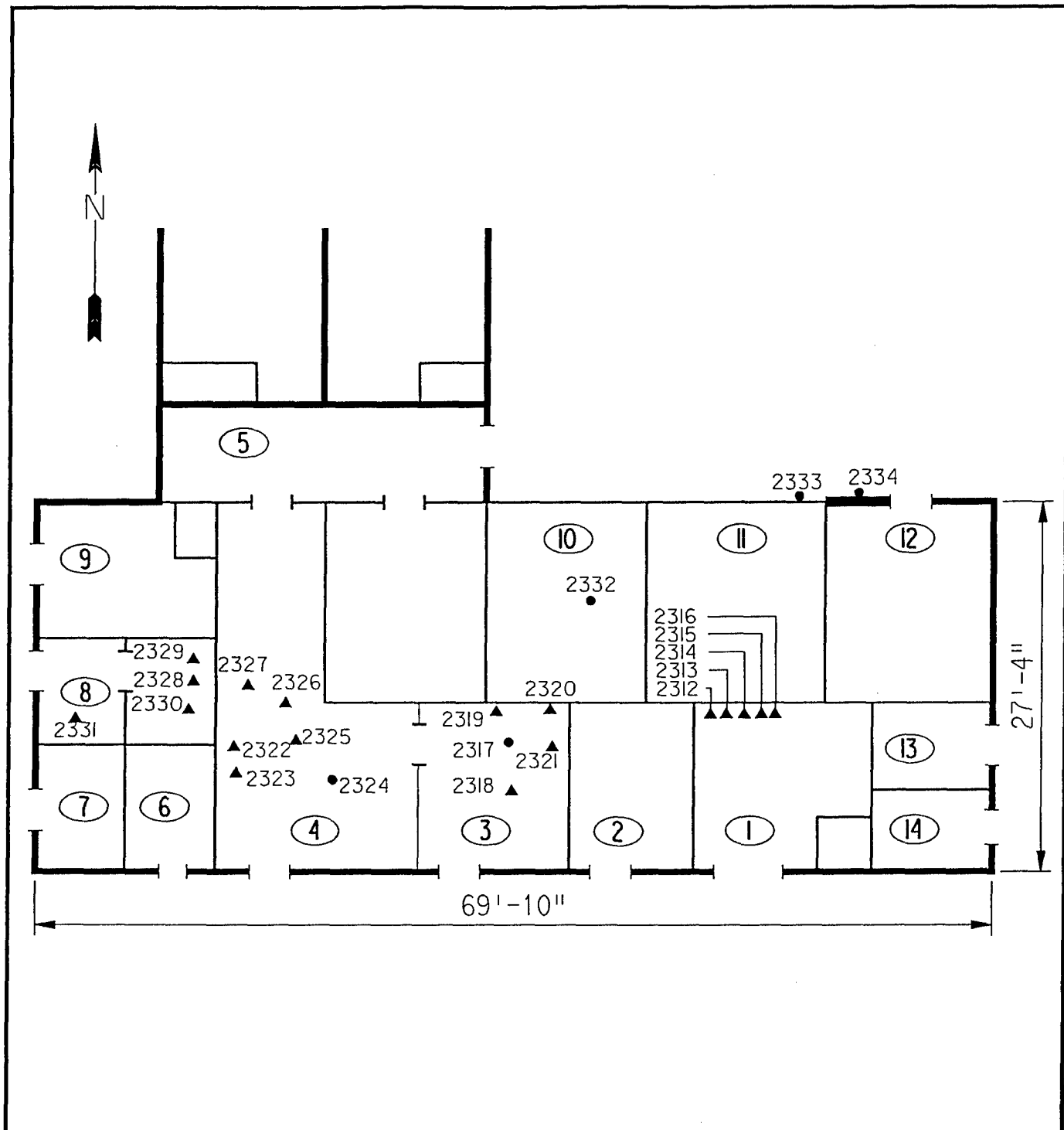
#### **4.0 FUNCTIONAL SPACES**

- #1 Work Areas: **ACM Assessment Rating C**, there is an abundance of significantly damaged friable ACM in an unoccupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

#### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be poor as described above. Pipe insulations were observed to be friable, while other ACMs were nonfriable. The extensive damage observed indicated that the building is not regularly maintained. The assessment rating was based on the premise that the building was locked and inaccessible even for maintenance activities. The building should be locked and have warning signs posted.



LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 243 SAMPLE LOCATIONS			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY:	SCALE:	SHT. OF
		J3947.04	MLC	NTS	
		DATE:	03-16-93	FILE:	3947AB48.DGN
					FIG.

# ACM Assessment Rating Summary

Damage Assessment		Building Number: 243	Exposure Assessment	
-------------------	--	----------------------	---------------------	--

Functional Space Number:	1	ENTIRE STRUCTURE	Occupancy:	Unoccupied
Physical:	HIGH	5	Material Friability:	HIGH 3
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE 0
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	NONE 0
Type ACM:	TSI NOT	1	Area of surface or damaged ACM:	101-1000 LF 2
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A 0
			Unoccupied Facility:	F DAMAGED 5
		Total 12	Total 10	
ACM Assessment Rating:	C			

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 243				AMMO QUALITY FACILITY					
Location		Material							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	ELECTRICAL ROOM	PI-01	F	35 LF	<25	D	M	FIBERGLASS LIKE	
	ELECTRICAL ROOM	FI-01	F	9 EA	<25	D	M		
	ELECTRICAL ROOM	PI-02	F	25 LF	<25	D	M		
	ELECTRICAL ROOM	FI-02	F	9 EA	<25	D	M		
RM-02	INACCESSIBLE	PI-01	F	8 LF	<25	D		INACCESSABLE, LOOKED THROUGH THE WINDOW OF THE DOOR INACCESSABLE, LOOKED THROUGH THE WINDOW OF THE DOOR INACCESSIBLE, LOOKED THROUGH THE WINDOW OF THE DOOR INACCESSIBLE, LOOKED THROUGH THE WINDOW OF THE DOOR.	
	INACCESSIBLE	PI-02	F	28 LF	<25	D			
	INACCESSIBLE	FI-02	F	5 EA	<25	D			
	INACCESSIBLE	FI-01	F	EA	<25	D			
RM-03	EMPTY	PI-01	F	10 LF	<25	D	M	FIBERGLASS LIKE	
	EMPTY	PI-02	F	10 LF	<25	D	M		
	EMPTY	FT-01	NF	110 SF	>25	S	M	DAMAGED	
	EMPTY	PI-03	F	10 LF	<25	D	M		
	EMPTY	PI-04	F	30 LF	<25	D	M	AIRCELL	
	EMPTY	FI-04	F	10 EA	<25	D	M		
RM-04	STORAGE	PI-02	F	12 LF	<25	D	M	WHITE MAG NO FITTINGS FELT	
	STORAGE	PI-03	F	80 LF	<25	D	M		
	STORAGE	FI-03	F	15 EA	<25	D	M	AIRCELL	
	STORAGE	PI-04	F	15 LF	<25	D	M		
	STORAGE	FI-04	F	2 EA	<25	D	M		
	STORAGE	FT-01	NF	175 SF	>25	S	M		
RM-05	HALL	-			<10			NO SUSPECT ACM MATERIALS	
RM-06	STORAGE	-			<10			NO SUSPECT ACM MATERIALS	
RM-08	RESTROOM	PI-01	F	20 LF	<25	D	M		
	RESTROOM	FI-01	F	5 EA	<25	D	M		
	RESTROOM	PI-02	F	50 LF	<25	D	M		
	RESTROOM	FI-02	F	20 EA	<25	D	M		
	RESTROOM	PI-04	F	10 LF	<25	D	M		
	RESTROOM	FI-04	F	2 EA	<25	D	M		
RM-09	EMPTY	PI-01	F	18 LF	<25	D	M		
	EMPTY	FI-01	F	5 EA	<25	D	M		
	EMPTY	PI-02	F	25 LF	<25	D	M		
	EMPTY	FI-02	F	7 EA	<25	D	M		
RM-10	OPEN BAY	FT-01	NF	110 SF	>25	S	M		
RM-11	OPEN BAY	-			<10			NO SUSPECT ACM MATERIALS	
RM-12	STORAGE	CB-01	NF	300 SF	<10	G	L	TRANSITE TYPE	
	STORAGE	FT-01	NF	120 SF	>25	S	M		
RM-13	STORAGE	FT-01	NF	30 SF	>25	S	M		
RM-14	STORAGE	FT-01	NF	30 SF	>25	S	M		
RM-07	RESTROOM	PI-01	F	12 LF	<25	D	M		
Touch: F =Friable NF=Nonfriable			Extent: Percent of Damage				Potential: For Damage L=Low M=Moderate H=High		
Amount: SF=Square Feet LF=Linear Feet			Assess: G=Good D=Damaged S=Significantly Damaged						
Inspector:	COMBS, KAREN						Inspection Date:	02/04/93	



# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 243		AMMO QUALITY FACILITY							
Location.....		Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-07	RESTROOM	FI-01	F	2	EA	<25	D	M	
	RESTROOM	PI-02	F	25	LF	<25	D	M	
	RESTROOM	FI-02	F	8	EA	<25	D	M	
	RESTROOM	PI-03	F	15	LF	<25	D	M	
	RESTROOM	FI-03	F	6	EA	<25	D	M	
	RESTROOM	PI-04	F	8	LF	<25	D	M	
	RESTROOM	FI-04	F	5	EA	<25	D	M	
EXTERIOR	ROOF	RM-01	NF	2000	SF	<10	G	L	TARS, AND FELTS

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

Building Number: 243		AMMO QUALITY FACILITY								
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)	
CB-01	CEMENT BOARD	TRANSITE TYPE	0.50	I	M	N	Y	2333 2334	RM-11 RM-12	
FI-01	FITTING INSULATION	FITTINGS ON PI-01	1.00	I	T	Y	Y	2316	RM-01	
FI-02		FITTINGS ON PI-02 WHITE MAG	1.00	I	T	Y	Y	2315  2331	RM-01  RM-08	
FI-03		FITTINGS ON PI-03 FELT	1.00	I	T	Y	ASSUMED			
FI-04		FITTINGS ON PI-04 AIRCELL	1.00	I	T	Y	Y	2321 2325	RM-03 RM-04	
FT-01	FLOOR TILE	1' X 2' BLACK	0.25	I	M	N	N	2317 2324 2332	RM-03 RM-04 RM-10	
PI-01	PIPE INSULATION	FIBERGLASS/HORSEHAIR LIKE	1.00	I	T	Y	N	2313 2314 2319	RM-01 RM-01 RM-03	
PI-02		WHITE MAG	1.00	I	T	Y	Y	2312 2322 2328 2329	RM-01 RM-04 RM-08 RM-08	
PI-03		FELT	1.00	I	T	Y	Y	2318 2327	RM-03 RM-04	
PI-04		AIRCELL	1.00	I	T	Y	Y	2320 2323 2326 2330	RM-03 RM-04 RM-04 RM-08	
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED			

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
243	2312	019	AMOS		40	ZME
			ANPHO	LT	1	
			CHRY		3	
			CROCO	LT	1	
			TREACT	LT	1	
	2313	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2314	021	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2315	022	AMOS		40	
			ANPHO	LT	1	
			CHRY		3	
			CROCO	LT	1	
			TREACT	LT	1	
	2316	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	2317	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2318	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	2319	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2320	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	2321	010	AMOS	LT	1	ZMG
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
243	2322	011	AMOS		40	ZMG
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	2323	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	2324	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2325	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	2326	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		20	
			CROCO	LT	1	
			TREACT	LT	1	
	2327	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	2328	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	2329	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	2330	006	AMOS	LT	1	ZLZ
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	2331	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
243	2331	007	TREACT	LT	1	ZLZ
	2332	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2333	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	2334	010	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 243		AMMO QUALITY FACILITY					
Location .....	Material.....						
Code	Code Description	Friable	Condition	Amount	Unit	Cost Per Expense Estimate	Response Action Recommendation
EXTERIOR	RM-01 TARS, AND FELTS	N	G	2000 SF	N/A	N/A	Operations & Maintenance
RM-01	FI-01 FITTINGS ON PI-01	Y	D	9 EA	32.00 EA	86.40	Repairs Followed by O&M
	PI-02 WHITE MAG	Y	D	25 LF	19.00 LF	142.50	Repairs Followed by O&M
	FI-02 FITTINGS ON PI-02 WHITE MAG	Y	D	9 EA	32.00 EA	86.40	Repairs Followed by O&M
RM-02	PI-02 WHITE MAG	Y	D	28 LF	19.00 LF	159.60	Repairs Followed by O&M
	FI-02 FITTINGS ON PI-02 WHITE MAG	Y	D	5 EA	32.00 EA	48.00	Repairs Followed by O&M
	FI-01 FITTINGS ON PI-01	Y	D	EA	32.00 EA	0.00	Repairs Followed by O&M
RM-03	PI-02 WHITE MAG	Y	D	10 LF	19.00 LF	57.00	Repairs Followed by O&M
	PI-03 FELT	Y	D	10 LF	19.00 LF	57.00	Repairs Followed by O&M
	PI-04 AIRCELL	Y	D	30 LF	19.00 LF	171.00	Repairs Followed by O&M
	FI-04 FITTINGS ON PI-04 AIRCELL	Y	D	10 EA	32.00 EA	96.00	Repairs Followed by O&M
RM-04	PI-02 WHITE MAG	Y	D	12 LF	19.00 LF	68.40	Repairs Followed by O&M
	PI-03 FELT	Y	D	80 LF	19.00 LF	456.00	Repairs Followed by O&M
	FI-03 FITTINGS ON PI-03 FELT	Y	D	15 EA	32.00 EA	144.00	Repairs Followed by O&M
	PI-04 AIRCELL	Y	D	15 LF	19.00 LF	85.50	Repairs Followed by O&M
	FI-04 FITTINGS ON PI-04 AIRCELL	Y	D	2 EA	32.00 EA	19.20	Repairs Followed by O&M
RM-07	FI-01 FITTINGS ON PI-01	Y	D	2 EA	32.00 EA	19.20	Repairs Followed by O&M
	PI-02 WHITE MAG	Y	D	25 LF	19.00 LF	142.50	Repairs Followed by O&M
	FI-02 FITTINGS ON PI-02 WHITE MAG	Y	D	8 EA	32.00 EA	76.80	Repairs Followed by O&M
	PI-03 FELT	Y	D	15 LF	19.00 LF	85.50	Repairs Followed by O&M
	FI-03 FITTINGS ON PI-03 FELT	Y	D	6 EA	32.00 EA	57.60	Repairs Followed by O&M
	PI-04 AIRCELL	Y	D	8 LF	19.00 LF	45.60	Repairs Followed by O&M
	FI-04 FITTINGS ON PI-04 AIRCELL	Y	D	5 EA	32.00 EA	48.00	Repairs Followed by O&M
RM-08	FI-01 FITTINGS ON PI-01	Y	D	5 EA	32.00 EA	48.00	Repairs Followed by O&M
	PI-02 WHITE MAG	Y	D	50 LF	19.00 LF	285.00	Repairs Followed by O&M
	FI-02 FITTINGS ON PI-02 WHITE MAG	Y	D	20 EA	32.00 EA	192.00	Repairs Followed by O&M
	PI-04 AIRCELL	Y	D	10 LF	19.00 LF	57.00	Repairs Followed by O&M
	FI-04 FITTINGS ON PI-04 AIRCELL	Y	D	2 EA	32.00 EA	19.20	Repairs Followed by O&M
RM-09	FI-01 FITTINGS ON PI-01	Y	D	5 EA	32.00 EA	48.00	Repairs Followed by O&M
	PI-02 WHITE MAG	Y	D	25 LF	19.00 LF	142.50	Repairs Followed by O&M
	FI-02 FITTINGS ON PI-02 WHITE MAG	Y	D	7 EA	32.00 EA	67.20	Repairs Followed by O&M
RM-12	CB-01 TRANSITE TYPE	N	G	300 SF	N/A	N/A	Operations & Maintenance

## ACM Corrective Action Expense and Response Action Recommendations

Building: 243

AMMO QUALITY FACILITY

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	D	343 LF	\$ 1955.10
FI	Fitting Insulation	D	110 EA	\$ 1056.00
RM	Roofing Materials	G	2000 SF	\$ 0.00
CB	Cementous Board	G	300 SF	\$ 0.00
				\$ 3011.10

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.

Grand Junction, Colorado 81506

Grand Junction, Colorado 81506

## CHAIN OF SAMPLE CUSTODY

Page 1 of 3

Date 2-3-93

1. Project No. J 3947.04      2. Project Name JPG Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters @ 65 No	7. Remarks
2312	Bulk Asbestos	2-3-93	243	KAC
2313				KAC
2314				KAC
2315				KAC
2316				KAC
2317				KAC
2318				KAC
2319				KAC
2320				KAC
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	2-3-93	Asbestos	<i>[Signature]</i> ABC Co	2/5/93



SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 2 of 3  
 Date 2-3-93

1. Project No. J3947.04 2. Project Name J39 Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <i>ally M</i>	7. Remarks <i>Sampler Initials</i>
2321	Bulk Analysis	2-3-93	243	KAC
2322				KAC
2323				KAC
2324				KAC
2325				KAC
2326				KAC
2327				KAC
2328				KAC
2329				KAC
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	2-3-93	Aberts	<i>[Signature]</i> DCL	2/5/93
				Sup to Control

SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 3 of 3  
Date 2-3-93

1. Project No. J3947.04      2. Project Name JRg Task Order 5

[illegible]

## **BUILDING 244**

### **1.0 INTRODUCTION**

Building 244 was inspected for ACM by Karen Hendrickson (Indiana Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- One-story concrete construction at grade, containing 407 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

#### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>⑫ -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 244			
		PROJECT No.	DRAWN BY:	SCALE:	SHT. OF
J3947.04	MLC	NTS			
	DATE: 03-16-93	FILE: 3947AB49.DGN	FIG.		

# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 244		Exposure Assessment
----------------------	----------------------	--	------------------------

Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	N/A OR < 1%	0
		<b>Total</b>	<b>Total</b>		<b>0</b>
ACM Assessment Rating: F , no ACM					

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 244			SAFE HOUSE					
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				

INT/EXT	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS ELECTRICAL COMPONENTS ACM POSSIBLE PHOTO TAKEN
---------	------------	--	--	--	-----	--	--	--

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 244

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 244

SAFE HOUSE

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Unit Estimate	Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



# **BUILDING 245**

## **1.0 INTRODUCTION**

Building 245 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story completely concrete construction at grade, containing 407 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>⑫ -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 245			
PROJECT No.		DRAWN BY:	SCALE:	SHT. OF	
J3947.04		MLC	NTS		
		DATE:	FILE:	FIG.	
		03-16-93	3947AB50.DGN		

# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 245		Exposure Assessment
----------------------	----------------------	--	------------------------

Functional Space Number: 1			SAFE SHELTER			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0			
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1			
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1			
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0			
			Unoccupied Facility:	N/A OR < 1%	0			
		<b>Total</b>	<b>0</b>			<b>Total</b>	<b>0</b>	
ACM Assessment Rating: F , no ACM								

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 245		SAFE HOUSE					
.....Location.....		.....Material.....					
Code	Use	Code	Touch	Amount	Extent	Assess	Potential
Notes							

INT/EXT	SAFE HOUSE				<10			ELECTRICAL COMPONENTS COULD CONTAIN POSSIBLE ACM MATERIALS- BUT WITH THE EXTENT OF THIS INSPECTION NO SUSPECT ACM MATERIALS
---------	------------	--	--	--	-----	--	--	--

Touch: F = Friable  
 NF=Nonfriable

Amount: SF=Square Feet  
 LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
 D=Damaged  
 S=Significantly Damaged

Potential: For Damage  
 L=Low  
 M=Moderate  
 H=High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 245		SAFE HOUSE						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)	
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP			

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 245

SAFE HOUSE

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## **BUILDING 246**

### **1.0 INTRODUCTION**

Building 246 was inspected for ACM by Karen Hendrickson (Indiana Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Grounds" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk through of accessible rooms and/or areas of the building. No suspect ACM was identified.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- Concrete construction.

#### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 246			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)				
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-16-93	FILE: 3947AB51.DGN	FIG.



# *ACM Assessment Rating Summary*

Damage Assessment			Building Number: 246	Exposure Assessment		
<b>Functional Space Number: 1 ENTIRE BUILDING</b>				<b>Occupancy: Unoccupied</b>		
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1%	0	
		<b>Total</b>	<b>0</b>			<b>Total</b>
						<b>0</b>
<b>ACM Assessment Rating: F , no ACM</b>						

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 246

SAFE HOUSE

.....Location..... Code                    Use	.....Material..... Code  Touch  Amount	Extent	Assess	Potential	Notes
INT/EXT    SAFE HOUSE		<10			NO SUSPECT MATERIALS

Touch: F =Friable  
      NF=Nonfriable

Amount: SF=Square Feet  
      LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
      D=Damaged  
      S=Significantly Damaged

Potential: For Damage  
      L=Low  
      M=Moderate  
      H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 246

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 246

SAFE HOUSE

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 247**

## **1.0 INTRODUCTION**

Building 247 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>12 -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 247			
PROJECT No.		DRAWN BY:	SCALE:	SHT. OF	
J3947.04		MLC	NTS		
		DATE:	FILE:	FIG.	
		03-16-93	3947AB52.DGN		

# ACM Assessment Rating Summary

Damage Assessment			Building Number: 247		Exposure Assessment	
<b>Functional Space Number: 1    SAFE SHELTER</b>			<b>Occupancy: Unoccupied</b>			
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1 %	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1 %	0	
		<b>Total</b>			<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating: F , no ACM</b>						

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 247		SAFE HOUSE						
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE HOUSE				<10			NO SUSPECT MATERIALS ELECTRICAL COMPONENTS ACM POSSIBLE

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 247

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT ACM MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 247

SAFE HOUSE

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## **BUILDING 248**

### **1.0 INTRODUCTION**

Building 248 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- One-story completely concrete construction at grade, containing 407 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

#### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)		LOCATION: Jefferson Proving Ground			
■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)		TITLE: BUILDING 248			
▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)		PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
7008	-SAMPLE NUMBER (TYPICAL)	J3947.04	DATE: 03-16-93	FILE: 3947AB53.DGN	FIG.
12	-ROOM NUMBER (TYPICAL)				

# ACM Assessment Rating Summary

Damage Assessment			Building Number: 248		Exposure Assessment	
Functional Space Number: 1 BUNKER			Occupancy: Unoccupied			
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1%	0	
		Total			Total	0
ACM Assessment Rating: F, no ACM						

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 248

SAFE SHELTER

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS ELECTRICAL COMPONENTS POSSIBLE ACM

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 248

SAFE SHELTER

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 248

SAFE SHELTER

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



# **BUILDING 249**

## **1.0 INTRODUCTION**

Building 249 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 326 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND

- -MISC. MATERIAL - FLOOR TILE,  
CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON  
COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING  
AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)

(12) -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 249

PROJECT No.

J3947.04

DRAWN BY:

MLC

SCALE:

NTS

SHT. OF

DATE:

03-16-93

FILE:

3947AB54.DGN

FIG.

# *ACM Assessment Rating Summary*

Damage Assessment			Building Number:	249	Exposure Assessment		
Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied				
Physical:	NONE	0	Material Friability:	NF	0		
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0		
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1		
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1		
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0		
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0		
			Unoccupied Facility:	N/A OR < 1%	0		
		Total	0			Total	
						0	
ACM Assessment Rating: F , no ACM							

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS ELECTRICAL COMPONENTS POSSIBLE ACM

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 249

SAFE SHELTER

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 249

SAFE SHELTER

Location	Material	Cost Per	Expense	Response	Action
Code	Code Description	Friable Condition	Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 250**

## **1.0 INTRODUCTION**

Building 250 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade with built-up asphalt-based roof.
- The building area is 1,400 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 1,400 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

#### **4.0 FUNCTIONAL SPACES**

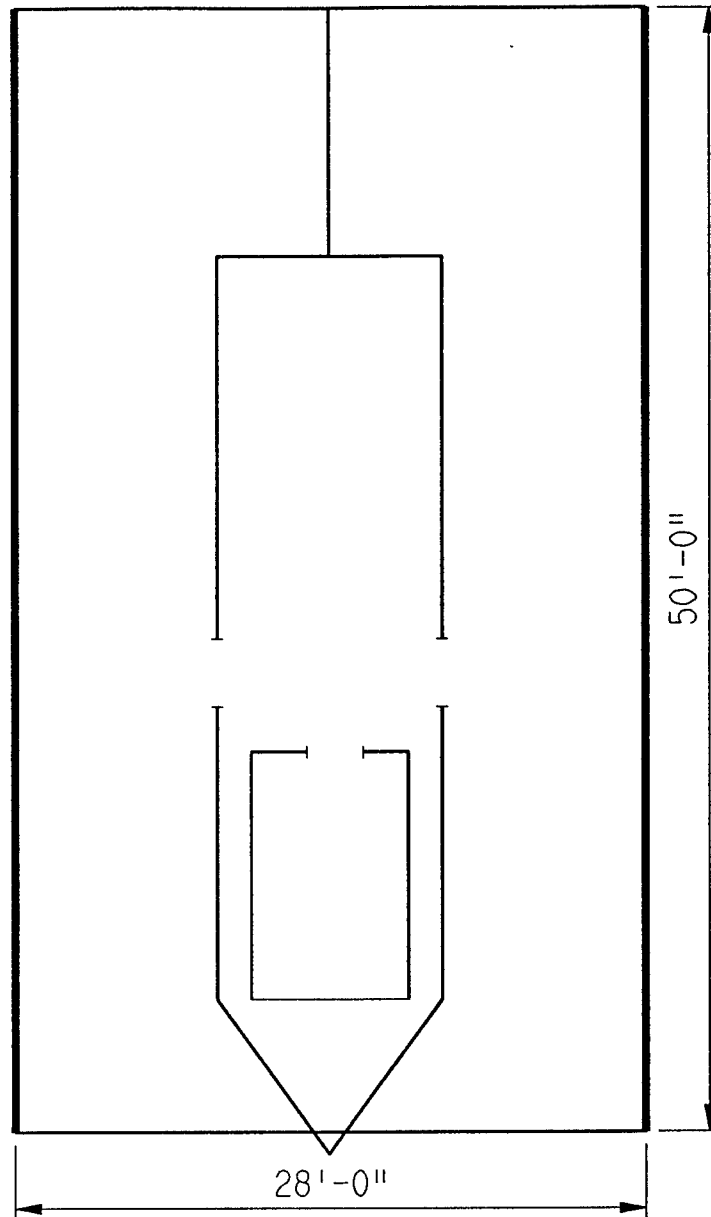
- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was inaccessible for inspection. This ACM is typically nonfriable and not considered to be a significant environmental concern.





ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 250 BUILDING LAYOUT			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)	PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
7008	-SAMPLE NUMBER (TYPICAL)	J3947.04	DATE: 03-11-93	FILE: 3947AB55.DGN	FIG.
12	-ROOM NUMBER (TYPICAL)				

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 250		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy: Unoccupied		
Physical:		NONE	0	Material Friability:	NF 0	
Water:		NONE	0	Occupant Accessibility to ACM:	LOW 0	
Sprayed-on or Trowelled-on:		NO MAINT.	0	Activity/Use:	NONE 0	
Pipe, Boiler, or Duct insulation:		NO	0	Air Stream/Plenum:	ACM OCCASIONAL 2	
Type ACM:		NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF 0	
Percent Asbestos:		1-30%	1	Occupied Facility:	N/A 0	
				Unoccupied Facility:	NF GOOD 1	
			<u>Total</u>	<u>Total</u>	<u>0</u>	
ACM Assessment Rating:			F			

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 250		SAFE SHELTER OBSERV. BOOTH							
.....Location.....	.....Material.....								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	SAFE SHELTER				<10			NO SUSPECT ACM MATERIALS	
EXTERIOR	SAFE SHELTER ROOF	RM-01	NF	1400 SF	<10	G	M	TARS, AND FELTS	

Touch: F =Friable  
 NF=Nonfriable

Amount: SF=Square Feet  
 LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
 D=Damaged  
 S=Significantly Damaged

Potential: For Damage  
 L=Low  
 M=Moderate  
 H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 250

SAFE SHELTER OBSERV.BOOOTH

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 250			SAFE SHELTER OBSERV.BOOOTH				
Location .....	Material.....	Cost Per Expense	Response Action				
Code	Code Description	Friable Condition Amount	Unit	Estimate	Recommendation		
EXTERIOR RM-01	TARS, AND FELTS	N	G	1400 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.		
RM	Roofing Materials	G	1400 SF	\$	0.00	
				\$	0.00	

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 251**

## **1.0 INTRODUCTION**

Building 251 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 11, 1993. The inspection approach implemented by Rust is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 326 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li><li>7008 -SAMPLE NUMBER (TYPICAL)</li><li>(12) -ROOM NUMBER (TYPICAL)</li></ul>	LOCATION: Jefferson Proving Ground				
	TITLE: BUILDING 25I				
	PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF	
	J3947.04	DATE: 03-16-93	FILE: 3947AB56.DGN	FIG.	

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 251</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

Functional Space Number:	1	ENTIRE BUILDING		Occupancy: Unoccupied		
Physical:		NONE	0	Material Friability:	NF	0
Water:		NONE	0	Occupant Accessibility to ACM:	NONE	0
Sprayed-on or Trowelled-on:		NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:		NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:		NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:		< 1%	0	Occupied Facility:	N/A	0
				Unoccupied Facility:	N/A OR < 1%	0
		<hr/> <hr/>		<hr/> <hr/>		
		Total	0	Total 0		
ACM Assessment Rating: F , no ACM						



# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 251      SAFE HOUSE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS ELECTRICAL COMPONENTS POSSIBLE ACM

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 251

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 251

SAFE HOUSE

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 252**

## **1.0 INTRODUCTION**

Building 252 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 11, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Cement construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul>	7008 -SAMPLE NUMBER (TYPICAL)	LOCATION: Jefferson Proving Ground			
	(12) -ROOM NUMBER (TYPICAL)	TITLE: BUILDING 252			
		PROJECT No. J3947.04	DRAWN BY: MLC	SCALE: NTS	SHT. OF
		DATE: 03-16-93	FILE: 3947AB57.DGN	FIG.	

# ACM Assessment Rating Summary

Damage Assessment			Exposure Assessment		
Building Number: 252					
Functional Space Number: 1	ENTIRE BUILDING		Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	N/A OR < 1%	0
		Total			Total
ACM Assessment Rating: F , no ACM		0			0

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 252      SAFE WALL

.....Location..... Code      Use	.....Material..... Code    Touch    Amount	Extent	Assess	Potential	Notes
EXTERIOR    SAFE WALL		<10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
      NF=Nonfriable

Amount: SF=Square Feet  
      LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
      D=Damaged  
      S=Significantly Damaged

Potential: For Damage  
      L=Low  
      M=Moderate  
      H=High

Inspector:    COMBS, KAREN

Inspection Date:    02/11/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 252

SAFE WALL

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE WALL	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/11/93



ACM Corrective Action Expense and Response Action Recommendations

Building: 252

SAFE WALL

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 253**

## **1.0 INTRODUCTION**

Building 253 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 6,615 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>⑫ -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 253			
		PROJECT No. J3947.04	DRAWN BY: MLC	SCALE: NTS	SHT. OF
		DATE: 03-16-93	FILE: 3947AB58.DGN	FIG.	

# *ACM Assessment Rating Summary*

Damage Assessment			Building Number: 253		Exposure Assessment	

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 253      SAFE HOUSE

.....Location..... Code                      Use	.....Material..... Code    Touch    Amount	Extent	Assess	Potential	Notes
INT/EXT      SAFE HOUSE		< 10			NO SUSPECT ACM MATERIALS ELECTRICAL COMPONENTS POSSIBLE ACM

Touch: F = Friable  
      NF = Nonfriable

Amount: SF = Square Feet  
          LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
          D = Damaged  
          S = Significantly Damaged

Potential: For Damage  
            L = Low  
            M = Moderate  
            H = High

Inspector:    COMBS, KAREN

Inspection Date:    02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 253

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 253

SAFE HOUSE

Location	Material	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 254**

## **1.0 INTRODUCTION**

Building 254 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story completely concrete construction at grade, containing 306 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.



BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>12 -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 254			
		PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
		J3947.04	DATE: 03-16-93	FILE: 3947AB59.DGN	FIG.

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 254		Exposure Assessment	
Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied			
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1%	0	
		Total	0	Total		0
ACM Assessment Rating: F , no ACM						

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 254

SAFE HOUSE / MTD

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE HOUSE				< 10			NO SUSPECT ACM MATERIALS INTERNAL ELECTRICAL COMPONENTS POSSIBLE ACM

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 254

SAFE HOUSE / MTD

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 254

SAFE HOUSE / MTD

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 255**

## **1.0 INTRODUCTION**

Building 255 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade with built-up asphalt-based roof.
- The building area is 414 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house. The building was considered unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 415 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

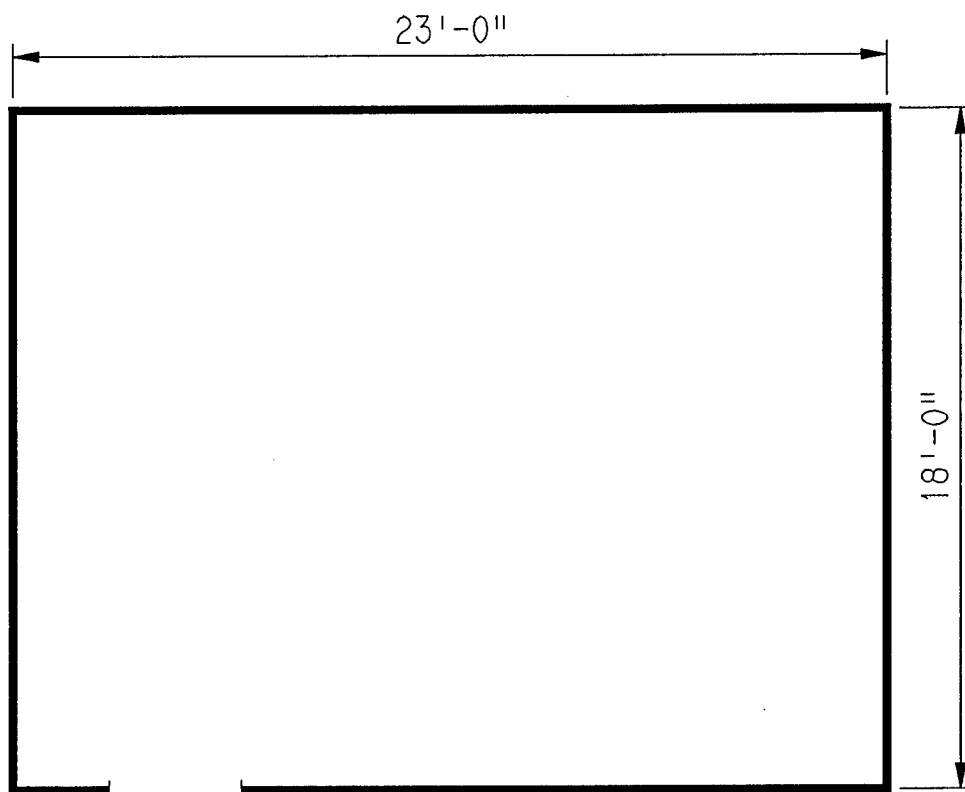
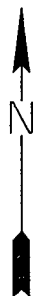
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was inaccessible for inspection. This ACM is typically nonfriable and not considered to be a significant environmental concern.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 255 BUILDING LAYOUT			
		PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
		J3947.04	DATE: 03-II-93	FILE: 3947AB60.DGN	FIG.
7008	-SAMPLE NUMBER (TYPICAL)				
(12)	-ROOM NUMBER (TYPICAL)				



# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 255</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy: Unoccupied</b>		
Physical:	MINIMAL	1	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<b>Total</b>		<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating:</b>	<b>F</b>				

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 255

SAFE HOUSE / CAMERA BLDG.

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INTERIOR	SAFE HOUSE/CAMERA BLDG.				<10			NO SUSPECT MATERIALS
EXTERIOR	SAFE HOUSE/CAMERA BLDG. ROOF	RM-01	NF	415 SF	<10	G	M	TARS, AND FELTS

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 255

SAFE HOUSE / CAMERA BLDG.

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 255

SAFE HOUSE / CAMERA BLDG.

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation
EXTERIOR RM-01	TARS, AND FELTS	N	G	415 SF
			N/A	N/A
				Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	415 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 256**

## **1.0 INTRODUCTION**

Building 256 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story completely concrete construction at grade containing 306 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>⑫ -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 256			
PROJECT No.		DRAWN BY:	SCALE:	SHT. OF	
J3947.04		MLC	NTS		
		DATE:	FILE:	FIG.	
		03-16-93	3947AB61.DGN		

# ACM Assessment Rating Summary

Damage Assessment		Building Number: 256		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy: Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	N/A OR < 1%	0
		<b>Total</b>	<b>0</b>	<b>Total</b>	<b>0</b>
ACM Assessment Rating:		F , no ACM			

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 256      SAFE HOUSE/ORD FAC

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS INTERJIOR ELECTRICAL COMPONENTS POSSIBLE ACM

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 256

SAFE HOUSE/ORD FAC

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 256

SAFE HOUSE/ORD FAC

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 257**

## **1.0 INTRODUCTION**

Building 257 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story completely concrete construction at grade with built-up asphalt-based roof.
- The building area is 113 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 113 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

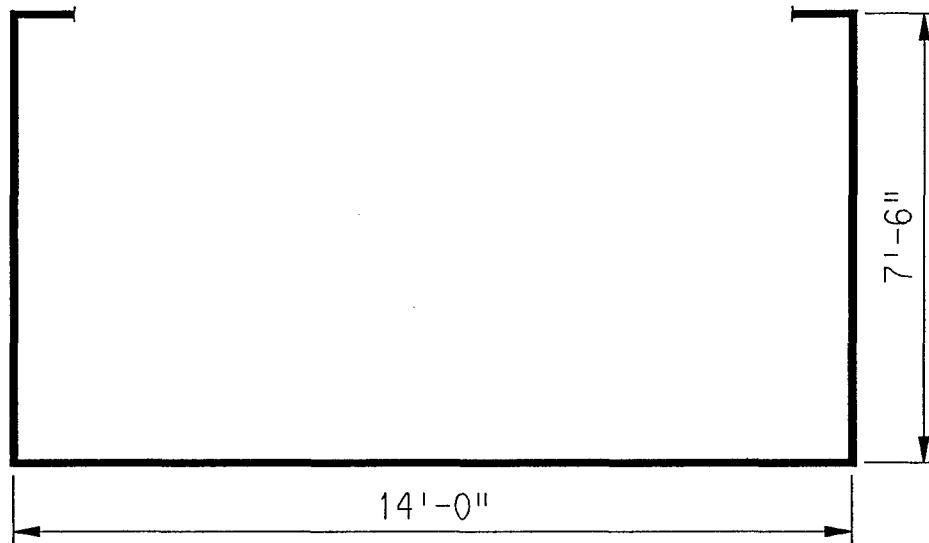
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was inaccessible for inspection. This ACM is typically nonfriable and not considered to be a significant environmental concern.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		TITLE: BUILDING 257 BUILDING LAYOUT			
PROJECT No.		DRAWN BY:	MLC	SCALE:	NTS
J3947.04		DATE:	03-11-93	FILE:	3947AB62.DGN
		SHT. OF		FIG.	

# *ACM Assessment Rating Summary*

Damage Assessment			Building Number: 257		Exposure Assessment	
Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied			
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0	
			Unoccupied Facility:	NF GOOD	1	
		<b>Total</b>			<b>Total</b>	0
ACM Assessment Rating: F						

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....						
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes
INTERIOR	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS
EXTERIOR	SAFE HOUSE	RM-01	NF	113 SF	<10	G	M	TARS, AND FELTS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/10/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 257

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 02/10/93



ACM Corrective Action Expense and Response Action Recommendations

Building: 257

SAFE HOUSE

Location .....		Material.....		Cost Per Expense		Response Action
Code	Code	Description	Friable Condition Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01		TARS, AND FELTS	N G	113 SF	N/A N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	113 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 258**

## **1.0 INTRODUCTION**

Building 258 was inspected for ACM by Karen Hendrickson (Indiana Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 306 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>⑫ -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 258			
PROJECT No.		DRAWN BY: MLC	SCALE: NTS	SHT. OF	
J3947.04		DATE: 03-16-93	FILE: 3947AB63.DGN	FIG.	

# *ACM Assessment Rating Summary*

Damage Assessment		Building Number: 258	Exposure Assessment	
-------------------	--	----------------------	---------------------	--

Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	N/A OR < 1%	0
		<b>Total</b>			<b>Total</b>
ACM Assessment Rating: F, no ACM		0			0

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 258

SAFE HOUSE/ ORD FAC

.....Location.....	.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes
INT/EXT	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS INTERIOR ELECTRICAL COMPONENTS POSSIBLE ACM

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 258

SAFE HOUSE/ ORD FAC

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 258

SAFE HOUSE/ ORD FAC

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## **BUILDING 259**

### **1.0 INTRODUCTION**

Building 259 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 9, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- One-story concrete construction at grade with built-up asphalt-based roof.
- The building area is 90 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

#### **2.2 Building Use**

At the time of inspection, the building was being used as a fuel station/oil pump building.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 90 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.



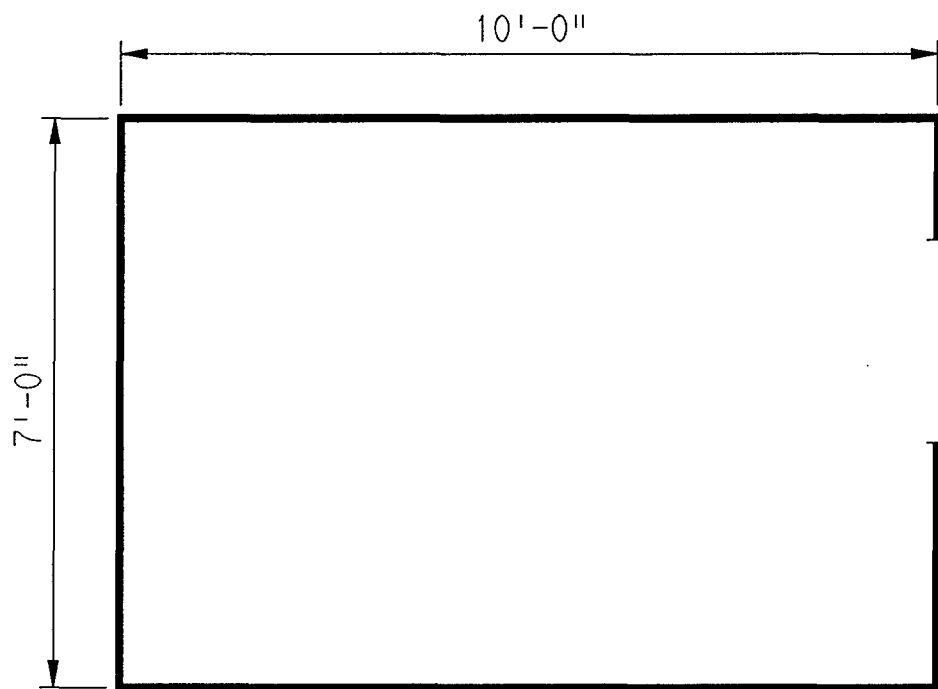
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was inaccessible for inspection. This ACM is typically nonfriable and not considered to be a significant environmental concern.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC	
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground	
7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		TITLE: BUILDING 259 BUILDING LAYOUT	
PROJECT No.	DRAWN BY: MLC	SCALE: NTS	SHT. OF
J3947.04	DATE: 03-11-93	FILE: 3947AB64.DGN	FIG.

### ACM Assessment Rating Summary

Damage  
Assessment

Building Number: 259

Exposure  
Assessment

Functional Space Number:	1	ENTIRE BUILDING	Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF 0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE 0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF 0
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A 0
			Unoccupied Facility:	NF GOOD 1
		<b>Total</b> 0		<b>Total</b> 0
ACM Assessment Rating:	F			

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	FUEL STATION/OIL PUMP BLDG.				<10			NO SUSPECT ACM MATERIALS	
EXTERIOR	FUEL STA./OIL PUMP BLDG.ROOF	RM-01	NF	90 SF	<10	G	M	TARS, AND FELTS	

Touch: F =Friable NF=Nonfriable	Extent: Percent of Damage	Potential: For Damage L=Low M=Moderate H=High
Amount: SF=Square Feet LF=Linear Feet	Assess: G=Good D=Damaged S=Significantly Damaged	
Inspector: BRYAN, TERI	Inspection Date: 02/09/93	

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 259

FUEL STA/OIL PUMP BLDG.

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	SHINGLES, TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

## ACM Corrective Action Expense and Response Action Recommendations

Building: 259

FUEL STA/OIL PUMP BLDG.

Location	Material	Cost Per	Expense	Response	Action
Code	Code Description	Friable Condition	Amount	Unit	Estimate Recommendation
EXTERIOR RM-01	SHINGLES, TARS, AND FELTS	N G	90 SF	N/A	N/A Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense	Est.
RM	Roofing Materials	G	90 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 260**

## **1.0 INTRODUCTION**

Building 260 was inspected for ACM by Syd Pincock (Indiana Building Inspector License No. 197723123) of Rust E&I on January 20, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction on concrete slab at grade, containing 68 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered by cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of inspection, the building was being used as a switching station.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- Less than 2 square feet of cement board ("Transite") electric panel transformer insulators. These insulators were inaccessible for inspection, but were assumed to be in satisfactory condition.

- 150 square feet of cement board ("Transite) roofing shingles. These shingles were observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.

#### **4.0 FUNCTIONAL SPACES**

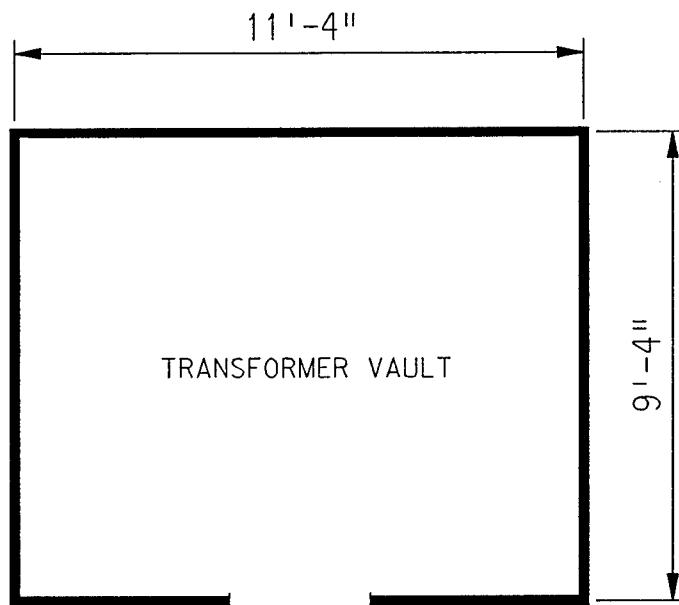
- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was observed to be nonfriable, and is generally considered not to be a significant environmental concern.





ASSUMED ASBESTOS ROOFING COMPONENTS  
ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 260 BUILDING LAYOUT			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
		J3947.04	DATE: 03-08-93	FILE: 3947AB20.DGN	FIG.

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 260		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0	
			Unoccupied Facility:	NF GOOD	1	
		<u>Total</u>	<u>0</u>			
				<u>Total</u>	<u>0</u>	
ACM Assessment Rating: F						

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 260                      TRANSFORMER HOUSE									
.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	TRANSFORMER HOUSE	MM-01	NF	<2 SF	<10	G	L	POSSIBLE TRANSITE TRANSFORMER INSULATOR MOUNTING PANELS	
EXTERIOR	TRANSFORMER HOUSE	RM-01	NF	150 SF	<10	G	L	SHINGLES, TARS, AND FELTS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PINCOCK, SYD

Inspection Date: 01/20/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 260 TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	TRANSITE TRANSFORMER INSULATOR MOUNTING PANELS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Friable: Y=Friable  
N=Nonfriable

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: PINCOCK, SYD

Inspection Date: 01/20/93

## ACM Corrective Action Expense and Response Action Recommendations

Building: 260

TRANSFORMER HOUSE

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01	SHINGLES, FELTS, AND TARS	N	G	150 SF	N/A	N/A	Operations & Maintenance
INTERIOR MM-01	TRANSITE TRANSFORMER INSULATOR	N	G	<2 SF	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	150 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 261**

## **1.0 INTRODUCTION**

Building 261 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction on concrete slab at grade, containing 68 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered by cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of inspection, the building was being used as a switching station.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- Less than 2 square feet of cement board ("Transite") electric panel transformer insulators. These insulators were inaccessible for inspection, but were assumed to be in satisfactory condition.

- 150 square feet of cement board ("Transite) roofing shingles. These shingles were observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.

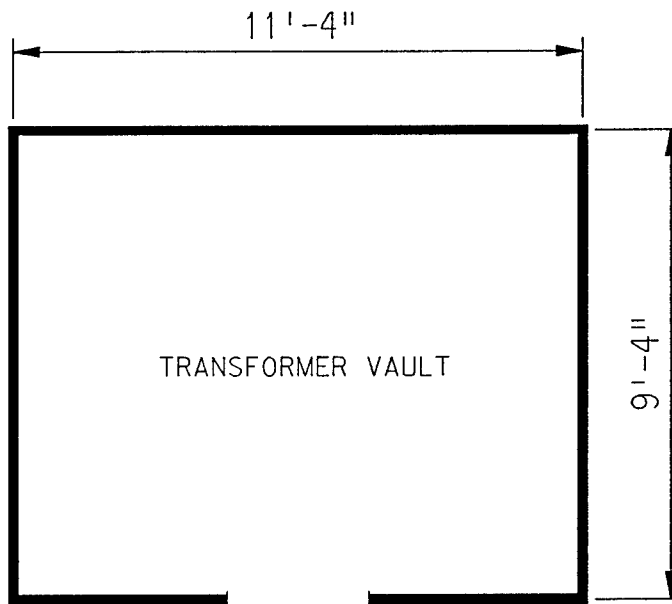
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was observed to be nonfriable, and is generally considered not to be a significant environmental concern.



ASSUMED ASBESTOS ROOFING COMPONENTS  
 ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 261 BUILDING LAYOUT			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
		J3947.04	DATE: 03-08-93	FILE: 3947AB65.DGN	FIG.



# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 261</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

**Functional Space Number: 1 ENTIRE BUILDING**

**Occupancy: Unoccupied**

Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
	<b>Total</b>	<b>0</b>		<b>Total</b>	<b>0</b>

**ACM Assessment Rating: F**

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 261                      TRANSFORMER HOUSE									
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	<2 SF	<10	G	L	TRANSITE TRANSFORMER INSULATORS MAY BE PRESENT INSIDE ELECTRICAL PANELS	
EXTERIOR	ROOF	RM-01	NF	150 SF	<10	G	L	SHINGLES, TARS, AND FELTS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 261

TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	TRANSITE TRANSFORMER INSULATOR MOUNTING PANELS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES, TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

## ACM Corrective Action Expense and Response Action Recommendations

Building: 261

TRANSFORMER HOUSE

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR RM-01		SHINGLES, TARS, AND FELTS	N	G	150 SF	N/A	N/A Operations & Maintenance
INTERIOR MM-01		TRANSITE TRANSFORMER INSULATOR	N	G	<2 SF	N/A	N/A Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	150 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 262**

## **1.0 INTRODUCTION**

Building 262 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 11, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 262 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction on concrete slab at grade, containing 135 square feet.
- The building is unheated.
- The building is uninsulated.
- The building interior is finished with cement board ("Transite") ceiling panels.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered roofing tars and felts.

## **2.2 Building Use**

At the time of the inspection, the building was being used as a fuse/detonator magazine.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 150 square feet of cement board ("Transite") ceiling panels. These panels were observed to be in generally good condition with minor areas of isolated damage.
- 150 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

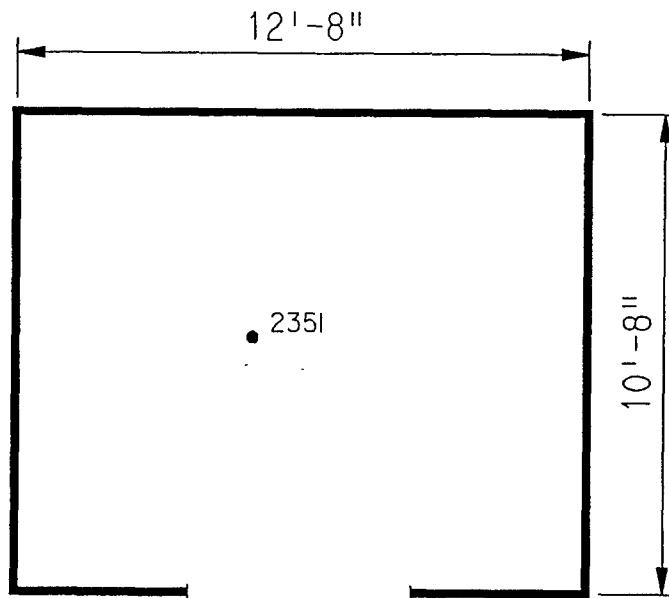
## **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

## **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



<b>LEGEND</b>		<b>CLIENT:</b> USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		<b>LOCATION:</b> Jefferson Proving Ground			
		<b>TITLE:</b> BUILDING 262 SAMPLE LOCATIONS			
7008	-SAMPLE NUMBER (TYPICAL)	<b>PROJECT No.</b>	<b>DRAWN BY:</b> RFG	<b>SCALE:</b> NTS	<b>SHT. OF</b>
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	<b>DATE:</b> 03-08-93	<b>FILE:</b> 3947AB66.DGN	<b>FIG.</b>

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 262</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number: 1</b>	<b>ENTIRE BUILDING</b>		<b>Occupancy: Unoccupied</b>		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	31-50%	2	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
	<b>Total</b>	<b>0</b>		<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating: F</b>					



# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	STORAGE	CB-01	NF	150 SF	<10	G	L	TRANSITE PANELS	
EXTERIOR	ROOF	RM-01	NF	150 SF	<10	G	L	TARS, AND FELTS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 262

FUSE DETONATOR MAGAZINE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENTOUS BOARD	TRANSITE CEILING PANELS	0.50	I	M	N	Y	2351	RM-01
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
262	2351	009	AMOS	LT	1	ZPQ
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 262

FUSE DETONATOR MAGAZINE

Location .....		Material.....		Cost Per Expense		Response Action	
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	TARS, AND FELTS	N	G	150 SF	N/A	Operations & Maintenance
RM-01	CB-01	TRANSITE CEILING PANELS	N	G	150 SF	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	150 SF	\$	0.00
CB	Cementous Board	G	150 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
Date 2-10-93

1. Project No. 53947.04 2. Project Name 586-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume <del>In Liters</del> <sup>Bldg</sup> No.	7. Remarks
2351	Bulk Asbestos	2-10-93	262	
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Bud C. Miller	2-10-93	Asbestos	Sharon Dean DCL	2-15-93
				Sample Rec

# **BUILDING 263**

## **1.0 INTRODUCTION**

Building 263 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on January 28, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 263 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction on concrete slab at grade containing 135 square feet.
- The building is unheated.
- The building is uninsulated.
- The building interior is finished with cement board ("Transite") ceiling panels.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered roofing tars and felts.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a fuse/detonator magazine.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 125 square feet of cement board ("Transite") ceiling panels. These panels were observed to be in generally good condition with minor areas of isolated damage.
- 100 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

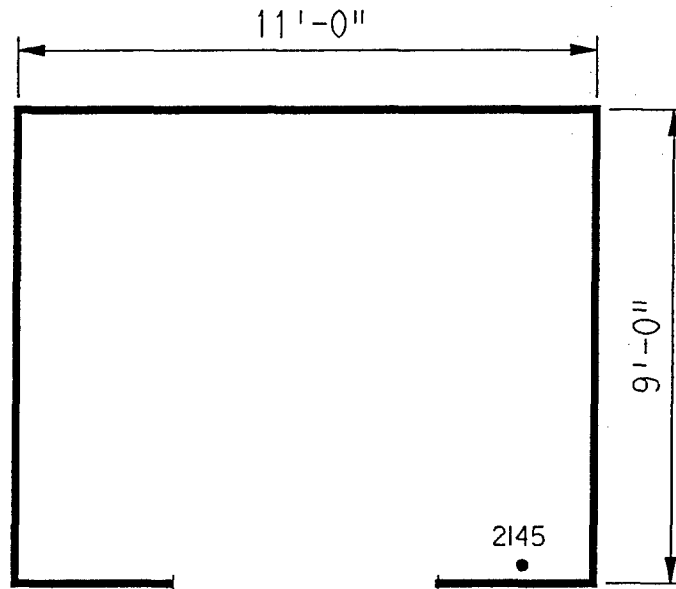
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: ACM Assessment Rating F, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS

<b>LEGEND</b>		<b>CLIENT:</b> USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> <li>7008 -SAMPLE NUMBER (TYPICAL)</li> <li>⑫ -ROOM NUMBER (TYPICAL)</li> </ul>		<b>LOCATION:</b> Jefferson Proving Ground			
		<b>TITLE:</b> BUILDING 263 BUILDING LAYOUT			
		<b>PROJECT No.</b> J3947.04	<b>DRAWN BY:</b> RFG	<b>SCALE:</b> NTS	<b>SHT. OF</b>
		<b>DATE:</b> 03-08-93	<b>FILE:</b> 3947AB67.DGN	<b>FIG.</b>	



# *ACM Assessment Rating Summary*

Damage Assessment		Building Number: 263		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<hr/>			<hr/>
		Total	0	Total	0
ACM Assessment Rating: F					

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	INTERIOR	CB-01	NF	100 SF	<10	G	L	TRANSITE TYPE CEILING PANELS	
EXTERIOR	ROOF	RM-01	NF	125 SF	<10	G	L	SUSPECT ACM	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 01/28/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 263		FUSE DETONATOR MAGAZINE							
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENTOUS BOARD	TRANSITE TYPE CEILING PANELS	0.50	I	M	N	Y	2145	RM-01
RM-01	ROOFING MATERIALS	TARS, AND FELTS ETC.	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 01/28/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
263	2145	004	AMOS	LT	1	ZKN
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 263		FUSE DETONATOR MAGAZINE					
Location .....		Material.....			Cost Per	Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR	RM-01	TARS, AND FELTS ETC.	N	G	125 SF	N/A	N/A Operations & Maintenance
RM-01	CB-01	TRANSITE TYPE CEILING PANELS	N	G	100 SF	N/A	N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	125 SF	\$	0.00
CB	Cementous Board	G	100 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
Date 1/28/93

1. Project No. J3947.04      2. Project Name JPG Task 004

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume Building # <del>#</del>	7. Remarks Inspector.
2145	Bulk Asbestos	1/28/93	BLDG 263	KAC
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
Karen Combs	1-28-93	Asbestos	SIB Bldg	2/1/93 SIB (Combs)

# **BUILDING 264**

## **1.0 INTRODUCTION**

Building 264 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 106 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as an transformer building.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 150 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

### **4.0 FUNCTIONAL SPACES**

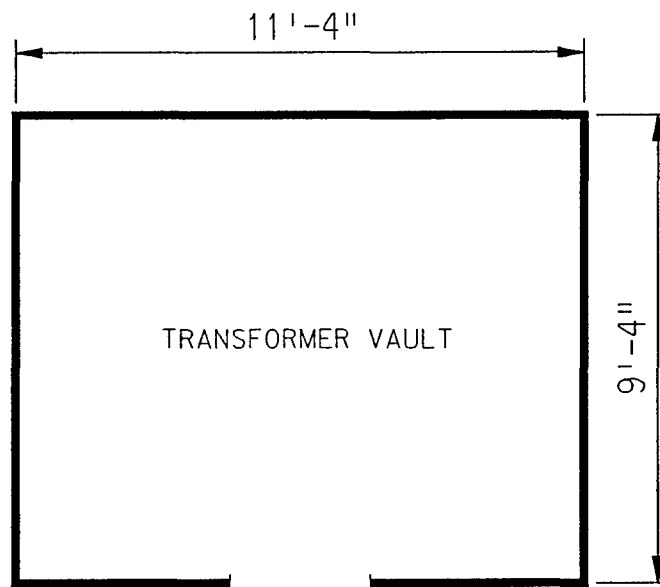
- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.





ASSUMED ASBESTOS ROOFING COMPONENTS  
 ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li><li>7008 -SAMPLE NUMBER (TYPICAL)</li><li>⑫ -ROOM NUMBER (TYPICAL)</li></ul>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 264 BUILDING LAYOUT			
		PROJECT No. J3947.04		DRAWN BY: RFG	SCALE: NTS
		DATE: 03-08-93	FILE: 3947AB68.DGN	FIG.	

# ACM Assessment Rating Summary

	Building Number:	264	
Damage Assessment			Exposure Assessment

Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<hr/> <hr/>		<hr/> <hr/>	
		Total	0	Total	0
ACM Assessment Rating:	F				

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 264		TRANSFORMER HOUSE							
Location.....		Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	<2 SF	<10	G	L	POSSIBLE TRANSITE INSULATOR MOUNTING PANELS INSIDE ELECTRICAL BOXES	
EXTERIOR	ROOF	RM-01	NF	100 SF	<10	G	M	SHINGLES, FELTS, AND TARS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/10/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 264

TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	TRANSITE TRANSFORMER INSULATOR MOUNTING PANELS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP=No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 02/10/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 264

TRANSFORMER HOUSE

Location .....		Material.....		Cost Per Expense		Response Action
Code	Code	Description	Friable Condition	Amount	Unit	Estimate Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	100 SF	N/A N/A Operations & Maintenance
INTERIOR	MM-01	TRANSITE TRANSFORMER INSULATOR	N	G	<2 SF	N/A N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	100 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 265**

## **1.0 INTRODUCTION**

Building 265 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on January 13, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 265 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Brick and concrete construction on concrete slab generally at grade with a recessed boiler room.
- The building area is 1,630 square feet.
- The building is heated radiant steam via an insulated supply and return pipe system originating from the building's boiler room.
- The building interior is finished with wood-based fiberboard ceiling panels and vinyl floor tiles.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

## **2.2 Building Use**

At the time of inspection, the building was not being used. Previously, this building had been used as an ammunition conditioning and storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 335 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration in Room 4 and Room 1 (the boiler room).
- 110 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally good condition with evidence of minor physical damage or material deterioration.
- 28 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration in Room 6 (bathroom).
- 10 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in generally good condition with evidence of minor physical damage or material deterioration in Room 6 (bathroom).
- 35 linear feet of canvas-covered fiberglass (possibly contaminated) pipe insulation. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 14 areas of packed "fitting" insulation on pipes otherwise insulated with canvas-covered fiberglass material. This insulation was observed to be in generally good condition with evidence of minor physical damage or material deterioration.
- 180 square feet of 9" x 9" brown vinyl floor tiles with gold design. These tiles were observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration in Room 2 (storage room).
- 2,100 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

#### **4.0 FUNCTIONAL SPACES**

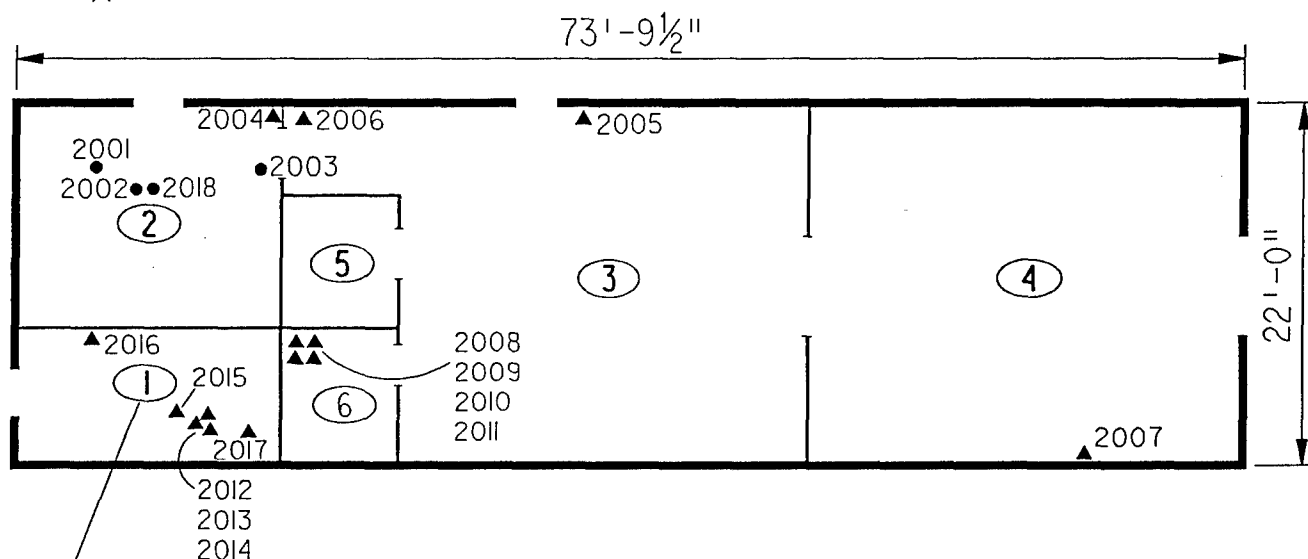
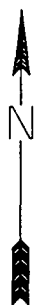
- #1 Rooms 2 through 6: **ACM Assessment Rating C**, there is damaged friable ACM in an infrequently visited area.
- #2 Room 1 (Boiler Room): **ACM Assessment Rating C**, there is damaged friable ACM in an infrequently visited area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

#### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. Pipe insulations were observed to be friable, while other ACM was nonfriable.





ROOM ① IS A BASEMENT  
AREA BELOW ROOM 2

### ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)		LOCATION: Jefferson Proving Ground			
■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)		TITLE: BUILDING 265 SAMPLE LOCATIONS			
▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)		PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
7008 -SAMPLE NUMBER (TYPICAL)		J3947.04	DATE: 03-08-93	FILE: 3947AB69.DGN	FIG.
⑫ -ROOM NUMBER (TYPICAL)					

# ACM Assessment Rating Summary

Damage Assessment	Building Number: 265	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1	ALL ROOMS EXCEPT BOILER ROOM	Occupancy: Unoccupied
Physical:	MINIMAL 1	Material Friability: MODERATE 2
Water:	NONE 0	Occupant Accessibility to ACM: MODERATE 1
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: LOW 1
Pipe, Boiler, or Duct insulation:	YES 3	Air Stream/Plenum: ACM OCCASIONAL 2
Type ACM:	TSI ACCESSIBLE 2	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	> 51% 3	Occupied Facility: N/A 0
		Unoccupied Facility: F DAMAGED 5
	<b>Total 9</b>	<b>Total 11</b>
ACM Assessment Rating: C		

Functional Space Number: 2	BOILER ROOM	Occupancy: Unoccupied
Physical:	MODERATE 3	Material Friability: MODERATE 2
Water:	MINOR 1	Occupant Accessibility to ACM: MODERATE 1
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: LOW 1
Pipe, Boiler, or Duct insulation:	YES 3	Air Stream/Plenum: ACM OCCASIONAL 2
Type ACM:	TSI NOT 1	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	> 51% 3	Occupied Facility: N/A 0
		Unoccupied Facility: F DAMAGED 5
	<b>Total 11</b>	<b>Total 11</b>
ACM Assessment Rating: C		

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 265

GEN. PURPOSE WAREHOUSE

.....Location..... Code Use	.....Material..... Code Touch Amount	Extent	Assess	Potential	Notes
RM-04 STORAGE	PI-01 F 60 LF 10		D	H	DOORS STORED AGAINST TSI, DAMAGED THE AREA WITH A HIGH POTENTIAL FOR FUTURE DAMAGE
STORAGE	FI-01 F 15 EA <10		G	H	DOORS STORED AGAINST TSI- HIGH POTENTIAL FOR FUTURE DAMAGE
RM-03 STORAGE	FI-01 F 30 EA <10		G	M	SOME JACKET CRACKING
STORAGE	PI-01 F 110 LF <10		G	M	OPEN ENDS AND JACKET CRACKS
RM-06 BATHROOM	PI-02 F 28 LF 10		D	M	CRACKED JACKETS AND PAINT
BATHROOM	FI-02 F 10 EA 10		D	M	CRACKED PAINT AND JACKETS
RM-05 BATHROOM	-	<10			ACCESS IMPOSSIBLE AS MATERIALS WERE STORED AGAINST THE DOOR LEADING TO THE AREA
RM-02 STORAGE	PI-01 F 45 LF <10		G	M	MINOR DAMAGE & CRACKING
STORAGE	FI-01 F 15 EA <10		G	M	SMALL CRUMBLING ON ONE FITTING
STORAGE	FT-01 NF 180 SF 10		D	M	CRACKS AND GOUGES ON THE SURFACE
RM-01 BOILER ROOM	PI-01 F 120 LF <10		G	M	APPROX. 4' SECTION FALLEN OFF PIPE NEAR CEILING-SOME RESIDUE ON LOWER PIPES & FLOOR, WATER DAMAGE
BOILER ROOM	FI-01 F 50 EA <10		G	M	
BOILER ROOM	PI-03 F 35 LF <10		G	M	APPEARS TO BE FIBERGLASS- JACKET MAY BE FRIABLE
BOILER ROOM	FI-03 F 14 EA <10		G	M	
EXTERIOR ROOF	RM-01 NF 2100 SF <10		G	L	SHINGLES, FELTS, AND TARS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 01/13/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 265	GEN. PURPOSE WAREHOUSE						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FI-01	FITTING INSULATION	PLASTER ON PI-01 WHITE MAG	1.00	I	T	Y	Y	2017 2006 2007	RM-01 RM-03 RM-05
FI-02		PLASTER ON PI-02 AIRCELL	1.00	I	T	Y	Y	2011	RM-06
FI-03		PLASTER ON PI-03 FIBERGLASS W/ CANVAS JACKET	1.00	I	T	Y	Y	2012	RM-01
								2013 2014	RM-01 RM-01
FT-01	FLOOR TILE	9" X 9" BROWN / GOLD	0.25	I	M	N	Y	2001 2002 2003 2018	RM-02 RM-02 RM-02 RM-01
PI-01	PIPE INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	2004 2005 2016	RM-02 RM-03 RM-01
PI-02		AIRCELL	1.00	I	T	Y	Y	2008 2009 2010	RM-06 RM-06 RM-06
PI-03		FIBERGLASS W/ CANVAS JACKET	1.00	I	T	Y	Y	2015	RM-01
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: COMBS, KAREN

Inspection Date: 01/13/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
265	2001	010	AMOS	LT	1	ZFD
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	2002	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		3	
			CROCO	LT	1	
			TREACT	LT	1	
	2003	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	2004	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	2005	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	2006	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	2007	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		35	
			CROCO	LT	1	
			TREACT	LT	1	
	2008	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2009	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	2010	001	AMOS	LT	1	ZFF
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
265	2011	002	AMOS	LT	1	ZFF
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	2012	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		55	
			CROCO	LT	1	
			TREACT	LT	1	
	2013	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	2014	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	2015	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	2016	007	AMOS		40	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2017	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	2018	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 265

GEN. PURPOSE WAREHOUSE

Location .....		Material .....		Cost Per		Expense	Response Action
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	2100 SF	N/A	Operations & Maintenance
RM-01	PI-01	WHITE CHALKY	Y	G	120 LF	N/A	Operations & Maintenance
	FI-01	PLASTER ON PI-01 WHITE MAG	Y	G	50 EA	N/A	Operations & Maintenance
	PI-03	FIBERGLASS W/ CANVAS JACKET	Y	G	35 LF	N/A	Operations & Maintenance
	FI-03	PLASTER ON PI-03 FIBERGLASS W/	Y	G	14 EA	N/A	Operations & Maintenance
RM-02	PI-01	WHITE CHALKY	Y	G	45 LF	N/A	Operations & Maintenance
	FI-01	PLASTER ON PI-01 WHITE MAG	Y	G	15 EA	N/A	Operations & Maintenance
	FT-01	9" X 9" BROWN / GOLD	N	D	180 SF	4.00 SF	Repairs Followed by O&M
RM-03	FI-01	PLASTER ON PI-01 WHITE MAG	Y	G	30 EA	N/A	Operations & Maintenance
	PI-01	WHITE CHALKY	Y	G	110 LF	N/A	Operations & Maintenance
RM-04	PI-01	WHITE CHALKY	Y	D	60 LF	19.00 LF	342.00 Repairs Followed by O&M
	FI-01	PLASTER ON PI-01 WHITE MAG	Y	G	15 EA	N/A	Operations & Maintenance
RM-06	PI-02	AIRCELL	Y	D	28 LF	19.00 LF	159.60 Repairs Followed by O&M
	FI-02	PLASTER ON PI-02 AIRCELL	Y	D	10 EA	32.00 EA	96.00 Repairs Followed by O&M

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	D	180 SF	\$ 216.00
PI	Pipe Insulation	G	310 LF	\$ 0.00
PI	Pipe Insulation	D	88 LF	\$ 501.60
FI	Fitting Insulation	G	124 EA	\$ 0.00
FI	Fitting Insulation	D	10 EA	\$ 96.00
RM	Roofing Materials	G	2100 SF	\$ 0.00
				\$ 813.60

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1-13-93

1. Project No. J3947.04 2. Project Name JPG - Task 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Bldg #	7. Remarks (Samplers Initials)
2001	Bulk Asbestos	1-13-93	265	KAC <del>00768</del> <sup>00769</sup> 1/20/93
2002	"	1-13-93	265	KAC <del>00769</del>
2003	"	1-13-93	265	KAC <del>00770</del>
2004	"	1-13-93	265	KAC <del>00771</del>
2005	"	1-13-93	265	KAC <del>00772</del>
2006	"	1-13-93	265	KAC <del>00773</del>
2007	"	1-13-93	265	KAC <del>00774</del>
2008	"	1-13-93	265	KAC <del>00775</del>
2009	"	1-13-93	265	KAC <del>00776</del>
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Loren Combs	1-13-93	Asbestos	<del>SEC Donohue, Inc.</del> DCL-SAB/20/93	1-18-93
Sample Receiving				

*[Handwritten signature]*



ZFF

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1-13-93

1. Project No. J3947.04 2. Project Name JPG - Task 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Bldg #	7. Remarks (Samplers Initial)	
2010	Bulk Asbestos	1-13-93	265	KAC <del>00817</del> SWS	
2011	"	1-13-93	265	KAC <del>00818</del>	
2012	"	1-13-93	265	KAC <del>00819</del>	
2013	"	1-13-93	265	KAC <del>00820</del>	
2014	"	1-13-93	265	KAC <del>00821</del>	
2015	"	1-13-93	265	KAC <del>00822</del>	
2016	"	1-13-93	265	KAC <del>00823</del>	
2017	"	1-13-93	265	KAC <del>00824</del>	
2018	"	1-13-93	265	KAC <del>00825</del>	
8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
Laurie Combs	1-13-93	Asbestos	<del>Asbestos</del> DCL SWS	1-18-93	sample. Receiving

SWS 1/20/93

# **BUILDING 266**

## **1.0 INTRODUCTION**

Building 266 was inspected for ACM by Jeffrey R. Prescher (Indiana Building Inspector License No. 191923103) of Rust E&I on January 13, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 266 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Brick and concrete construction on concrete slab generally at grade with a recessed boiler room.
- The building area is 1,630 square feet.
- The building is heated radiant steam via an insulated supply and return pipe system originating from the building's boiler room.
- The building interior is finished with wood-based fiberboard ceiling panels and vinyl floor tiles.
- No fireproofing or other structural coatings were observed.
- The building's roof covered with cement board ("Transite") roofing shingles.

## 2.2 Building Use

At the time of inspection the building was not being used. Previously, this building had been used as an ammunition conditioning and storage facility.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 315 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration in Room 1, Room 2, and Room 5.
- 38 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally good condition with evidence of minor physical damage or material deterioration in Room 1.
- 36 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration in Room 1.
- 31 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in generally good condition with evidence of minor physical damage or material deterioration in Room 1.
- 29 linear feet of felt-wrap pipe insulation. This insulation was observed to be in good condition in Room 5 (mens rest room), and in poor condition with evidence of significant physical damage or material deterioration in Room 6 (women's rest room).
- 9 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. This insulation was observed to be in good condition in Room 5 (mens rest room), and in fair to poor condition with evidence of general and significant physical damage or material deterioration in Room 6.
- 1,875 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

## 4.0 FUNCTIONAL SPACES

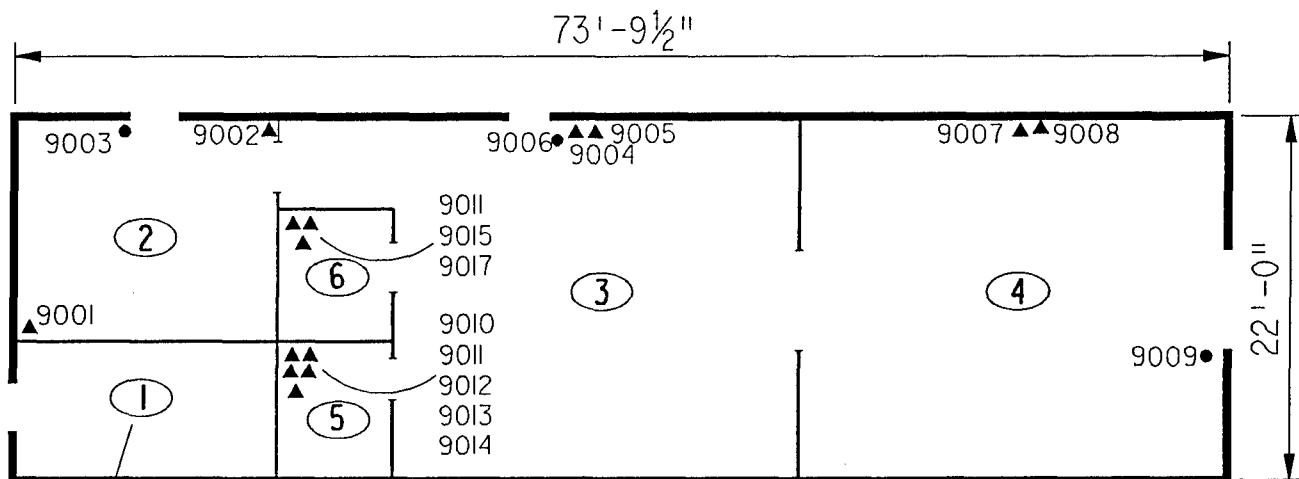
- #1 Room 1 (Boiler Room): **ACM Assessment Rating C**, there is damaged friable ACM in an unoccupied area.
- #2 Rooms 2 through 4 (Storage Rooms): **ACM Assessment Rating C**, there is damaged friable ACM in an unoccupied area.

- #3 Rooms 5 and 6 (Rest Rooms): **ACM Assessment Rating C**, there is damaged friable ACM in an unoccupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

## **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. Pipe insulations were observed to be friable, while other ACMs were nonfriable. The pipe insulation and mudded fitting insulation in the rest rooms received an assessment of damaged to significantly damaged. There are approximately 60 linear feet of pipe insulation and 25 mudded fittings in the rest rooms. The building's plumbing fixtures had been winterized and the water shut off to them, rendering the rest room facilities unusable at that time. Personnel most likely to be exposed to the friable materials would be an occasional worker dropping off or picking up a stored item and inadvertently accessing those rooms. The condition of the friable ACM in this functional space warrants the following recommendation: the building rooms should be locked and posted with an asbestos warning sign to prevent accidental access; and an Asbestos Program Manager, working with an accredited Asbestos Management Planner, should review all pertinent documents and work procedures relating to this building and develop plans to protect workers, future occupants, and the public from the hazards of respirable asbestos.



ROOM ① IS A BASEMENT  
AREA BELOW ROOM 2

### ASSUMED ASBESTOS ROOFING COMPONENTS

#### LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- ⑫ -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

**BUILDING 266  
SAMPLE LOCATIONS**

PROJECT No.

J3947.04

DRAWN BY:

RFG

SCALE:

NTS

SHT. OF

DATE:

03-08-93

FILE:

3947AB70.DGN

FIG.

# ACM Assessment Rating Summary

Damage Assessment	Building Number:	266	Exposure Assessment
----------------------	------------------	-----	------------------------

Functional Space Number:	1	ROOM 1 BOILER ROOM	Occupancy:	Unoccupied
Physical:	MODERATE	3	Material Friability:	HIGH 3
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW 1
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	TSI NOT	1	Area of surface or damaged ACM:	10-100 LF 1
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A 0
			Unoccupied Facility:	F DAMAGED 5
		<b>Total</b>	<b>Total</b>	<b>12</b>
ACM Assessment Rating:	C			

Functional Space Number:	2	ROOM 2-4 STORAGE ROOMS	Occupancy:	Unoccupied
Physical:	LOW	2	Material Friability:	MODERATE 2
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW 1
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	TSI NOT	1	Area of surface or damaged ACM:	< 10 LF 0
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A 0
			Unoccupied Facility:	F DAMAGED 5
		<b>Total</b>	<b>Total</b>	<b>10</b>
ACM Assessment Rating:	C			

Functional Space Number:	3	ROOM 5-6 RESTROOMS	Occupancy:	Unoccupied
Physical:	HIGH	5	Material Friability:	HIGH 3
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW 1
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	TSI NOT	1	Area of surface or damaged ACM:	10-100 LF 1
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A 0
			Unoccupied Facility:	F DAMAGED 5
		<b>Total</b>	<b>Total</b>	<b>12</b>
ACM Assessment Rating:	C			

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 266		GENERAL PURPOSE WAREHOUSE							
Location	Material								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	BOILER ROOM	PI-01	F	80	LF	10	D	M	
	BOILER ROOM	FP-01	F	100	EA	10	D	M	
	BOILER ROOM	PI-02	F	20	LF	10	D	M	
	BOILER ROOM	FI-02	F	20	EA	10	D	M	
RM-02	STORAGE	PI-01	F	55	LF	10	D	M	
	STORAGE	FI-01	F	10	EA	<10	G	M	
	STORAGE	FT-01	NF	195	SF	10	D	L	
RM-03	STORAGE	PI-01	F	100	LF	<10	G	M	
	STORAGE	FI-01	F	10	EA	<10	G	M	
	STORAGE	FT-01	NF	594	SF	10	D	L	
RM-04	STORAGE	FT-01	NF	528	SF	<10	G	L	
	STORAGE	PI-01	NF	65	LF	<10	G	L	
	STORAGE	FI-01	F	13	EA	<10	G	L	
RM-05	MENS RESTROOM	FI-01	F	5	EA	10	D	M	
	MENS RESTROOM	PI-01	F	15	LF	10	D	M	
	MENS RESTROOM	PI-02	F	2	LF	<10	G	M	
	MENS RESTROOM	PI-03	F	12	LF	<10	G	M	
	MENS RESTROOM	FI-03	F	5	EA	<10	G	M	
	MENS RESTROOM	FI-02	F	3	EA	<10	G	M	
	MENS RESTROOM	FT-01	NF	32	SF	<10	G	L	
RM-06	WOMENS RESTROOM	FT-01	NF	40	SF	<10	G	L	
	WOMENS RESTROOM	PI-02	F	14	LF	<10	G	M	
	WOMENS RESTROOM	PI-03	F	17	LF	>25	S	H	
	WOMENS RESTROOM	FI-03	F	4	EA	<25	D	M	
	WOMENS RESTROOM	FI-02	F	8	EA	<10	G	M	
EXTERIOR	ROOF	RM-01	NF	1875	SF	<10	G	L	ASSUMED

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PRESCHER, JEFF

Inspection Date: 01/13/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

Building Number: 266

GENERAL PURPOSE WAREHOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FI-01	FITTING INSULATION	PLASTER ON MAG PIPES	1.00	I	T	Y	Y	9002 9005 9008	RM-02 RM-03 RM-04
FI-02		PLASTER ON AIRCELL PIPES	1.00	I	T	Y	Y	9014	RM-05
FI-03		PLASTER ON FELT WRAP PIPES	1.00	I	T	Y	Y	9012 9017	RM-05 RM-06
FT-01	FLOOR TILE	9" X 9" BROWN W/BROWN MARKS	0.25	I	M	N	N	9003 9006 9009	RM-02 RM-03 RM-04
PI-01	PIPE INSULATION	MAGNESIUM CARBONATE	1.00	I	T	Y	Y	9001 9004 9007	RM-02 RM-03 RM-04
PI-02		AIRCELL	1.00	I	T	Y	Y	9013 9015	RM-05 RM-06
PI-03		FELT WRAP	1.00	I	T	Y	Y	9010 9011 9016	RM-05 RM-05 RM-06
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PRESCHER, JEFF

Inspection Date: 01/13/93



*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
266	9001	026	AMOS	LT	1	ZFE
			ANPHO	LT	1	
			CHRY		55	
			CROCO	LT	1	
			TREACT	LT	1	
	9002	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	9003	028	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9004	029	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	9005	030	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	9006	031	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9007	032	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	9008	033	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		55	
			CROCO	LT	1	
			TREACT	LT	1	
	9009	034	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9010	020	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY		3	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
266	9011	021	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY		8	
			CROCO	LT	1	
			TREACT	LT	1	
	9012	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	9013	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	9014	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	9015	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	9016	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	9017	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 266

GENERAL PURPOSE WAREHOUSE

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	1875 SF	N/A	Operations & Maintenance
RM-01	PI-01	MAGNESIUM CARBONATE	Y	D	80 LF	19.00 LF	456.00 Repairs Followed by O&M
	PI-02	AIRCELL	Y	D	20 LF	19.00 LF	114.00 Repairs Followed by O&M
	FI-02	PLASTER ON AIRCELL PIPES	Y	D	20 EA	32.00 EA	192.00 Repairs Followed by O&M
RM-02	PI-01	MAGNESIUM CARBONATE	Y	D	55 LF	19.00 LF	313.50 Repairs Followed by O&M
	FI-01	PLASTER ON MAG PIPES	Y	G	10 EA	N/A	Operations & Maintenance
RM-03	PI-01	MAGNESIUM CARBONATE	Y	G	100 LF	N/A	Operations & Maintenance
	FI-01	PLASTER ON MAG PIPES	Y	G	10 EA	N/A	Operations & Maintenance
RM-04	PI-01	MAGNESIUM CARBONATE	Y	G	65 LF	N/A	Operations & Maintenance
	FI-01	PLASTER ON MAG PIPES	Y	G	13 EA	N/A	Operations & Maintenance
RM-05	FI-01	PLASTER ON MAG PIPES	Y	D	5 EA	32.00 EA	48.00 Repairs Followed by O&M
	PI-01	MAGNESIUM CARBONATE	Y	D	15 LF	19.00 LF	85.50 Repairs Followed by O&M
	PI-02	AIRCELL	Y	G	2 LF	N/A	Operations & Maintenance
	PI-03	FELT WRAP	Y	G	12 LF	N/A	Operations & Maintenance
	FI-03	PLASTER ON FELT WRAP PIPES	Y	G	5 EA	N/A	Operations & Maintenance
	FI-02	PLASTER ON AIRCELL PIPES	Y	G	3 EA	N/A	Operations & Maintenance
RM-06	PI-02	AIRCELL	Y	G	14 LF	N/A	Operations & Maintenance
	PI-03	FELT WRAP	Y	S	17 LF	19.00 LF	323.00 Removal
	FI-03	PLASTER ON FELT WRAP PIPES	Y	D	4 EA	32.00 EA	38.40 Repairs Followed by O&M
	FI-02	PLASTER ON AIRCELL PIPES	Y	G	8 EA	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	G	193 LF	\$ 0.00
PI	Pipe Insulation	D	170 LF	\$ 969.00
PI	Pipe Insulation	S	17 LF	\$ 323.00
FI	Fitting Insulation	G	49 EA	\$ 0.00
FI	Fitting Insulation	D	29 EA	\$ 278.40
RM	Roofing Materials	G	1875 SF	\$ 0.00
				\$ 1570.40

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## CHAIN OF SAMPLE CUSTODY

Page 1 of 2  
Date 1/13/93

1. Project No. J 3947.04 2. Project Name SPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume, In Liters No.	7. REMARKS
9001	Bulk Asbestos	1/13/93	Bldg 266	SAMPLES INITIALS JP CN 00802
9002		1/13/93	Bldg 266	JP 00803
9003		1/13/93	Bldg 266	JP 00804
9004		1/13/93	Bldg 266	JP 00805
9005		1/13/93	Bldg 266	JP 00806
9006		1/13/93	Bldg 266	JP 00807
9007		1/13/93	Bldg 266	JP 00808
9008		1/13/93	Bldg 266	JP 00809
9009		1/13/93	Bldg 266	JP 00810
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Jeffrey R. Lamb	1-13-93	Asbestos	Signature Date DCL JML	1-18-93 Sample Receiving

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 1 of 2  
 Date 1/13/93

1. Project No. S3947.04 2. Project Name SPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. SITE ID In Volume In Entry NO.	7. Remarks
9010	Bulk Asbestos	1/13/93	BIDG 266	JP <del>ANODITJ</del> SUB 1/20/93
9011		1/13/93	BIDG 266	JP
9012		1/13/93	BIDG 266	JP
9013		1/13/93	BIDG 266	JP
9014		1/13/93	BIDG 266	JP
9015		1/13/93	BIDG 266	JP
9016		1/13/93	BIDG 266	JP
9017		1/13/93	BIDG 266	JP
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Michael R. Pank	1-13-93	Asbestos	Highway 160 DCL 8N3	1-18-93
				Sample Receiving

SPG SUB 1/20/93

# **BUILDING 267**

## **1.0 INTRODUCTION**

Building 267 was inspected for ACM by Teri Bryan (Indiana Inspector License No. 197323123) of Rust E&I on January 13, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 106 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer house.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 150 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

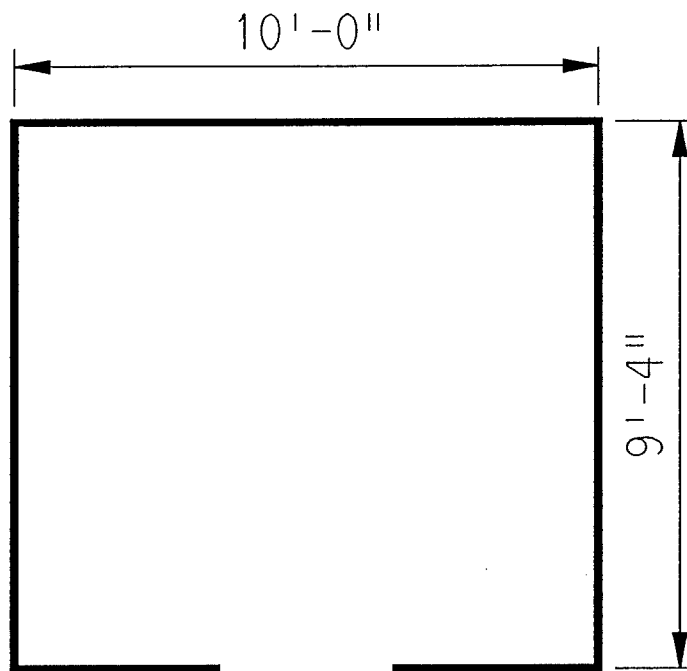
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: ACM Assessment Rating F, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> <li>7008 -SAMPLE NUMBER (TYPICAL)</li> <li>⑫ -ROOM NUMBER (TYPICAL)</li> </ul>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 267 BUILDING LAYOUT			
		PROJECT No. J3947.04	DRAWN BY: RFG	SCALE: NTS	SHT. OF
		DATE: 03-08-93	FILE: 3947ABTL.DGN	FIG.	



# ACM Assessment Rating Summary

Damage Assessment			Building Number: 267			Exposure Assessment					
Functional Space Number: 1			ENTIRE BUILDING			Occupancy: Unoccupied					
Physical:			NONE	0	Material Friability:			NF	0		
Water:			NONE	0	Occupant Accessibility to ACM:			LOW	0		
Sprayed-on or Trowelled-on:			NO MAINT.	0	Activity/Use:			NONE	0		
Pipe, Boiler, or Duct insulation:			NO	0	Air Stream/Plenum:			ACM OCCASIONAL	2		
Type ACM:			NF, GOOD	0	Area of surface or damaged ACM:			< 10 LF	0		
Percent Asbestos:			1-30%	1	Occupied Facility:			N/A	0		
					Unoccupied Facility:			NF GOOD	1		
			Total		0				Total		0
ACM Assessment Rating: F											

# *Inspector's Room-by-Room Inventory Suspect ACM*

<div> <div>Building Number: 267</div> <div>TRANSFORMER HOUSE</div> </div>									
.....Location..... Code                      Use	.....Material..... Code    Touch    Amount	Extent	Assess	Potential	Notes				
INTERIOR    ELECTRICAL COMPONENTS	MM-01    NF            2    SF	<10	G	L	POSSIBLE TRANSITE TRANFORMER INSULATORS INSIDE ELECTRICAL PANELS				
EXTERIOR    ROOF	RM-01    NF            150    SF	<10	G	L	SHINGLES, FELTS AND TARS				

Touch: F =Friable NF=Nonfriable	Extent: Percent of Damage	Potential: For Damage L=Low M=Moderate H=High
Amount: SF=Square Feet LF=Linear Feet	Assess: G=Good D=Damaged S=Significantly Damaged	
Inspector:    BRYAN, TERI	Inspection Date:    01/13/93	

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 267

TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	TRANSITE TRANSFORMER INSULATOR MOUNTING PANELS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 01/13/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 267

TRANSFORMER HOUSE

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01		SHINGLES, FELTS, AND TARS	N	G	150 SF	N/A	Operations & Maintenance
INTERIOR MM-01		TRANSITE TRANSFORMER INSULATOR	N	G	2 SF	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	150 SF	\$	0.00
MM	Misc. Materials	G	2 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 268**

## **1.0 INTRODUCTION**

Building 268 was inspected for ACM by Syd Pincock (Indiana Inspector License No. 197723123) of Rust E&I on January 29, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 268			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)				
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AB72.DGN	FIG.

# *ACM Assessment Rating Summary*

Damage Assessment			Building Number: 268	Exposure Assessment		
<b>Functional Space Number: 1</b>			<b>AMMO STORAGE IGLOO</b>	<b>Occupancy: Unoccupied</b>		
Physical:	NONE	0		Material Friability:	NF	0
Water:	NONE	0		Occupant Accessibility to ACM:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0		Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0		Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0		Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0		Occupied Facility:	N/A	0
				Unoccupied Facility:	N/A OR < 1%	0
			<b>Total</b>	<b>Total</b>		
<b>ACM Assessment Rating: F , no ACM</b>			<b>0</b>	<b>0</b>		

*Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 268

IGLOO STORAGE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	IGLOO STORAGE				<10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 268

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 268

IGLOO STORAGE

Location	Material	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## **BUILDING 269**

### **1.0 INTRODUCTION**

Building 269 was inspected for ACM by Karen Hendrickson (Indiana Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- Concrete construction.

#### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND

- -MISC. MATERIAL - FLOOR TILE,  
CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON  
COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING  
AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)

(12) -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 269

PROJECT No.

J3947.04

DRAWN BY:

RFG

SCALE:

NTS

SHT. OF

DATE:

03-08-93

FILE:

3947AB73.DGN

FIG.

# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 269	Exposure Assessment
----------------------	----------------------	------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy: Unoccupied</b>		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	N/A OR < 1%	0
		<b>Total</b>		<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating:</b>	<b>F , no ACM</b>				

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 269

IGLOO STORAGE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	IGLOO STORAGE				<10			NO SUSPECT ACM MATERIALS

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 269

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 269 IGLOO STORAGE

Location .....	Material .....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



# **BUILDING 270**

## **1.0 INTRODUCTION**

Building 270 was inspected for ACM by Syd Pincock (Indiana Inspector License No. 197723123) of Rust E&I on January 29, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

NO BUILDING OUTLINE AVAILABLE

NO SUSPECT ACM

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 270			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)				
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AB74.DGN	FIG.

# ACM Assessment Rating Summary

Damage Assessment	Building Number: 270	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1	AMMO STORAGE IGLOO	Occupancy: Unoccupied
Physical:	NONE 0	Material Friability: NF 0
Water:	NONE 0	Occupant Accessibility to ACM: NONE 0
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: LOW 1
Pipe, Boiler, or Duct insulation:	NO 0	Air Stream/Plenum: PRESENT W/ NO 1
Type ACM:	NF, GOOD 0	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	< 1% 0	Occupied Facility: N/A 0
		Unoccupied Facility: N/A OR < 1% 0
	<b>Total 0</b>	<b>Total 0</b>
ACM Assessment Rating: F , no ACM		

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 270

IGLOO STORAGE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	IGLOO STORAGE				<10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 270

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

Building: 270                      IGLOO STORAGE

.....

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

270-6

# **BUILDING 271**

## **1.0 INTRODUCTION**

Building 271 was inspected for ACM by Teri Bryan (Indiana Inspector License No. 197323123) of Rust E&I on February 9, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing-line structure.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)		LOCATION: Jefferson Proving Ground			
■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)		TITLE: BUILDING 27I			
▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)					
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AB75.DGN	FIG.



# ACM Assessment Rating Summary

Damage Assessment			Building Number: 271			Exposure Assessment			
Functional Space Number: 1			ENTIRE BUILDING			Occupancy: Unoccupied			
Physical:			NONE	0	Material Friability:			NF	0
Water:			NONE	0	Occupant Accessibility to ACM:			NONE	0
Sprayed-on or Trowelled-on:			NO MAINT.	0	Activity/Use:			LOW	1
Pipe, Boiler, or Duct insulation:			NO	0	Air Stream/Plenum:			PRESENT W/ NO	1
Type ACM:			NF, GOOD	0	Area of surface or damaged ACM:			< 10 LF	0
Percent Asbestos:			< 1%	0	Occupied Facility:			N/A	0
					Unoccupied Facility:			N/A OR < 1%	0

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 271

SAFE STRUCTURE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE STRUCTURE/"G"PO SITION				<10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 271

SAFE STRUCTURE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE STRUCTURE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 271

SAFE STRUCTURE

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## **BUILDING 272**

### **1.0 INTRODUCTION**

Building 272 was inspected for ACM by Syd Pincock (Indiana Inspector License No. 197723123) of Rust E&I on January 29, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- Concrete construction.

#### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> 7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 272			
		PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
		J3947.04	DATE: 03-08-93	FILE: 3947AB76.DGN	FIG.

# ACM Assessment Rating Summary

Damage Assessment			Exposure Assessment		
Building Number: 272					
Functional Space Number: 1			Occupancy: Unoccupied		
AMMO STORAGE IGLOO					
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	N/A OR < 1%	0
		<b>Total</b>			<b>Total</b>
		0			0
ACM Assessment Rating: F, no ACM					

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 272

IGLOO STORAGE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	IGLOO STORAGE				<10			NO SUSPECT ACM MATERIALS

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 272

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 272

IGLOO STORAGE

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 273**

## **1.0 INTRODUCTION**

Building 273 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 2, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 273 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction over concrete slab at grade; the building's area is 1,937 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the central boiler plant.
- The building interior is finished with vinyl floor tiles.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with asphalt-based roofing tars and felts.

### **2.2 Building Use**

At the time of inspection, the building was being used as a small arms storage facility.

### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 216 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in fair to poor condition with evidence of localized physical damage or material deterioration throughout the building. In Room 4, there is a 5-foot section of significantly damaged insulation considered beyond repair.
- 62 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard or felt-wrap material. This insulation was observed to be in generally fair to good condition with evidence of minor isolated physical damage or material deterioration in Room 3.
- 340 square feet of 9" x 9" brown vinyl floor tiles. These tiles were observed to be in good condition.
- 2000 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

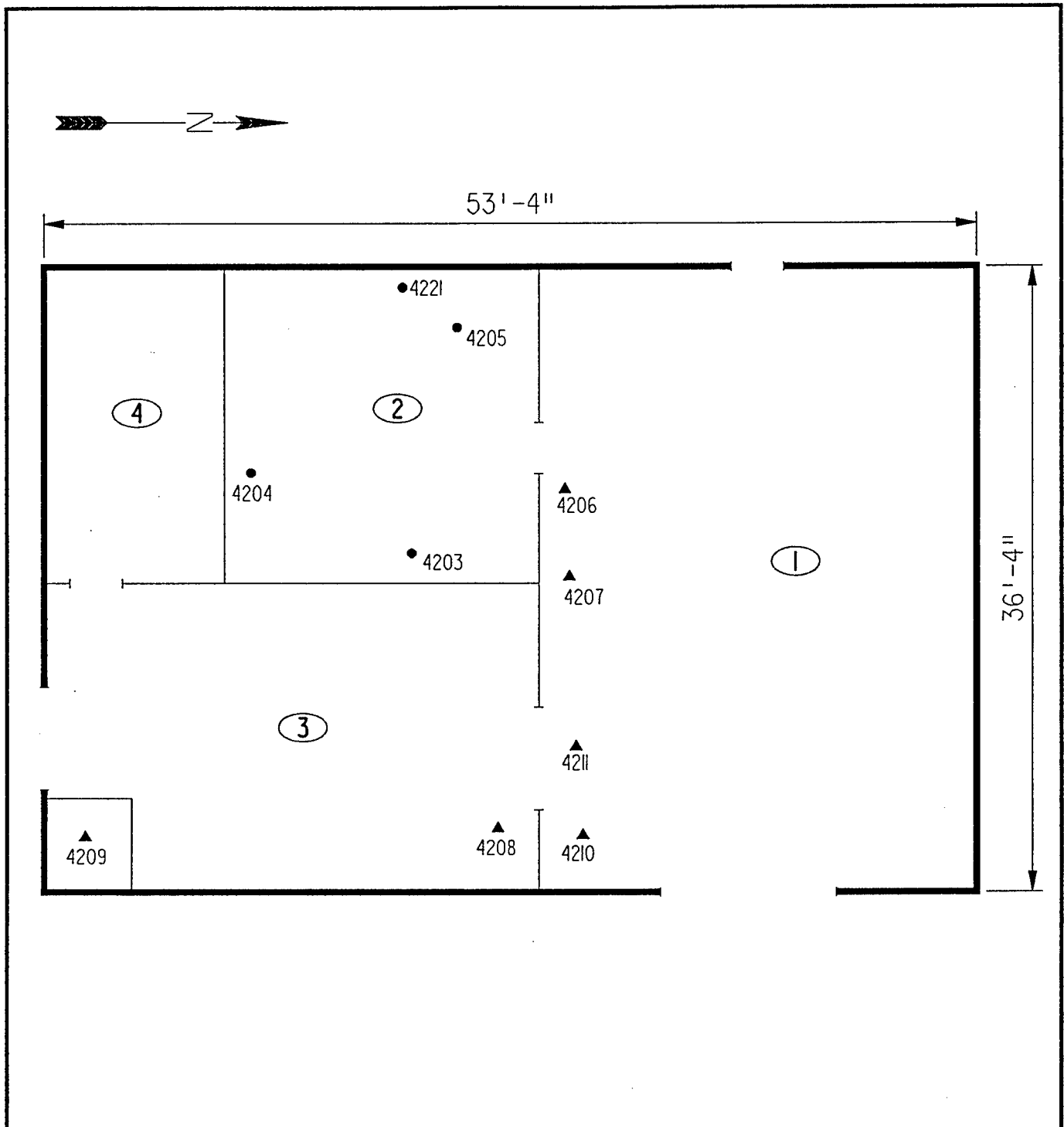
### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating C**, there is distributed damage to friable ACM in this visited yet unoccupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

### 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be fair to good as noted above. Pipe insulations were observed to be friable, while other ACM was nonfriable. Felt wrap pipe insulation was sampled yet the sample results indicated the material as non-ACM, similar material throughout the facility has been sampled and results have identified them as asbestos containing. When these materials are applied, the felt receives varying amounts of asbestos. Further sampling should be performed prior to demolition or renovation.



LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		TITLE: BUILDING 273 SAMPLE LOCATIONS			
PROJECT No.		DRAWN BY:	RFG	SCALE:	NTS
J3947.04		DATE:	03-08-93	FILE:	3947AB77.DGN
		SHT.	OF	FIG.	

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 273</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy: Unoccupied</b>		
Physical:	MODERATE	3	Material Friability:	HIGH	3
Water:	MINOR	1	Occupant Accessibility to ACM:	MODERATE	1
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	10-100 LF	1
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A	0
			Unoccupied Facility:	F DAMAGED	5
		<b>Total</b>	<b>12</b>	<b>Total</b>	<b>13</b>
<b>ACM Assessment Rating: C</b>					

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 273					SMALL ARMS STORAGE				
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
RM-01	STORAGE	PI-01	F	60	LF	<10	G	M	DISTRIBUTED DAMAGE, WITH OVERALL DAMAGE <10%
	STORAGE	PI-02	F	28	LF	<10	G	M	DISTRIBUTED DAMAGE, WITH OVERALL DAMAGE <10%
	STORAGE	FI-02	F	5	EA	<10	G	M	DISTRIBUTED DAMAGE, WITH OVERALL DAMAGE <10%
	STORAGE	FI-01	F	12	EA	<10	G	M	DISTRIBUTED DAMAGE, WITH OVERALL DAMAGE <10%
RM-02	STORAGE	FI-01	F	17	EA	<10	G	M	DISTRIBUTED DAMAGE, WITH OVERALL DAMAGE <10%
	STORAGE	PI-01	F	64	LF	<10	G	M	DISTRIBUTED DAMAGE, WITH OVERALL DAMAGE <10%
	STORAGE	FT-01	NF	340	SF	<10	G	L	
RM-03	STORAGE	PI-01	F	59	LF	10	D	M	
	STORAGE	FI-01	F	18	EA	10	D	M	
RM-04	STORAGE	FI-01	F	10	EA	<10	G	M	DISTRIBUTED DAMAGE, WITH OVERALL DAMAGE <10%
	STORAGE	PI-01	F	33	LF	10	D	H	5' SIGNIFICANTLY DAMAGED, CONSIDERED UNREPAIRABLE OVERALL DAMAGE ON LINES APPROX. 10%
EXTERIOR	ROOF	RM-01	NF	2000	SF	<10	G	L	BUILT UP FLAT ROOFING MATERIALS

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/02/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 273	SMALL ARMS STORAGE						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FI-01	FITTING INSULATION	ON AIR CELL	1.00	I	T	Y	Y	4208 4211	RM-03 RM-01
FI-02		ON FELT WRAP	1.00	I	T	Y	Y	4206	RM-01
FT-01	FLOOR TILE	9" X 9" BROWN	0.25	I	M	N	Y	4203 4204 4205 4221	RM-02 RM-02 RM-02 RM-02
PI-01	PIPE INSULATION	AIRCELL	1.00	I	T	Y	Y	4209	RM-03
PI-02		FELT WRAP	1.00	I	T	Y	N	4207 4210	RM-01 RM-01
RM-01	ROOFING MATERIALSNTARS, AND FELTS		0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/02/93



*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
273	4203	012	AMOS	LT	1	ZLA
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	4204	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		2	
			CROCO	LT	1	
			TREACT	LT	1	
	4205	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		36	
			CROCO	LT	1	
			TREACT	LT	1	
	4206	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	4207	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4208	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	4209	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	4210	019	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4211	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	4221	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		48	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 273

SMALL ARMS STORAGE

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	TARS, AND FELTS	N	G	2000 SF	N/A	Operations & Maintenance
RM-01	PI-01	AIRCELL	Y	G	60 LF	N/A	Operations & Maintenance
	FI-02	ON FELT WRAP	Y	G	5 EA	N/A	Operations & Maintenance
	FI-01	ON AIR CELL	Y	G	12 EA	N/A	Operations & Maintenance
RM-02	FI-01	ON AIR CELL	Y	G	17 EA	N/A	Operations & Maintenance
	PI-01	AIRCELL	Y	G	64 LF	N/A	Operations & Maintenance
	FT-01	9" X 9" BROWN	N	G	340 SF	N/A	Operations & Maintenance
RM-03	PI-01	AIRCELL	Y	D	59 LF	19.00 LF	336.30 Repairs Followed by O&M
	FI-01	ON AIR CELL	Y	D	18 EA	32.00 EA	172.80 Repairs Followed by O&M
RM-04	FI-01	ON AIR CELL	Y	G	10 EA	N/A	Operations & Maintenance
	PI-01	AIRCELL	Y	D	33 LF	19.00 LF	188.10 Repairs Followed by O&M

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	G	340 SF	\$ 0.00
PI	Pipe Insulation	G	124 LF	\$ 0.00
PI	Pipe Insulation	D	92 LF	\$ 524.40
FI	Fitting Insulation	G	44 EA	\$ 0.00
FI	Fitting Insulation	D	18 EA	\$ 172.80
RM	Roofing Materials	G	2000 SF	\$ 0.00
				\$ 697.20

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 1 of 2  
 Date 1-30-93

1. Project No. J3947.04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volumes In Liters Number	7. Remarks	8. Relinquished By	Date	Department
4203	Bulk Asbestos	1-30-93	273				
4204		1-30-93	273				
4205		1-30-93	273				
4206		1-30-93	273				
4207		1-30-93	273				
4208		1-30-93	273				
4209		1-30-93	273				
4210		1-30-93	273				
4211		1-30-93	273				
8. Relinquished By		Department	9. Received by and Company Name	Date			Department
Emile Eickler	1-30-93	Asbestos	Marian Dean/DCL	2-2-93			Sample Rec

SEC Donohue, Inc.

Grand Junction, Colorado 81506

## CHAIN OF SAMPLE CUSTODY

Page 2 of 2  
Date 1-30-93

1. Project No. J3947.04 2. Project Name JP6 Task 005

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <i>Bly</i> #	7. Remarks
4221	Bulk Asbestos	1-30-93	273	
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>K.S. Hester</i>	1-30-93	Asbestos	<i>Mark Dean</i> / Oct	2-2-93
				Serial Rec

# **BUILDING 274**

## **1.0 INTRODUCTION**

Building 274 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 11, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.
- The exterior is covered by asphalt-based tars and felts.

### **2.2 Building Use**

At the time of inspection, the building was being used as a firing-line structure.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 5 square feet of tars and felts. These tars and felts were observed to be remnants of a previously removed roofing material, and are in a nonfriable form in fair condition.

#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was in fair condition and nonfriable. The structure appears to have had a roof, which has apparently been removed. The only suspect ACM are remnants of the roofing materials, which are in damaged condition but are also present at below regulated quantities. Thus, there is no Corrective Action cost estimate for this building.

BUILDING OUTLINE NOT AVAILABLE

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 274			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)				
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AB78.DGN	FIG.

# ACM Assessment Rating Summary

Damage Assessment			Exposure Assessment		
Building Number: 274					
Functional Space Number:	1	ENTIRE BUILDING	Occupancy:	Unoccupied	
Physical:	MINIMAL	1	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, POOR	2	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF DAMAGED	2
		<b>Total</b>			<b>Total</b>
		0			0
ACM Assessment Rating: F					



# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes		
EXTERIOR	OUTSIDE WALL	RM-01	NF	5 SF	>25	D	M	REMNANT TAR AND FELT FROM A PREVIOUS ROOF- PHOTO TAKEN		

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 274

SAFE STRUCTURE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.25	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 274

SAFE STRUCTURE

Location .....		Material.....			Cost Per	Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR	RM-01	TARS, AND FELTS	N	D	5 SF	5.00 SF	7.50 Repairs Followed by O&M

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	D	5 SF	\$ 7.50
				\$ 7.50

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## **BUILDING 275**

### **1.0 INTRODUCTION**

Building 275 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on March 2, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 275 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- Concrete frame construction on concrete slab at grade containing 3,999 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the central boiler plant.
- The building is insulated in some rooms with soundproofing by fiberglass batts.
- The building interior is finished with cement board ("Transite") wall and ceiling panels.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with asphalt-based roofing tars and felts.

## 2.2 Building Use

At the time of inspection, the building was being used as a small arms firing range.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 10 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Room 10 (hallway).
- 271 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Rooms 7, 8, 9, and 10.
- 41 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Room 7.
- 20 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 5,685 square feet of cement board ("Transite") wall and ceiling panels. These panels were observed to be in generally good condition with minor areas of isolated damage.
- 4,025 square feet of roofing tars and felts. These tars and felts were observed to be in generally good condition with minor areas of isolated damage.
- Less than 5 square feet of cement board ("Transite") electrical panel insulators. These insulators were observed to be in good condition.

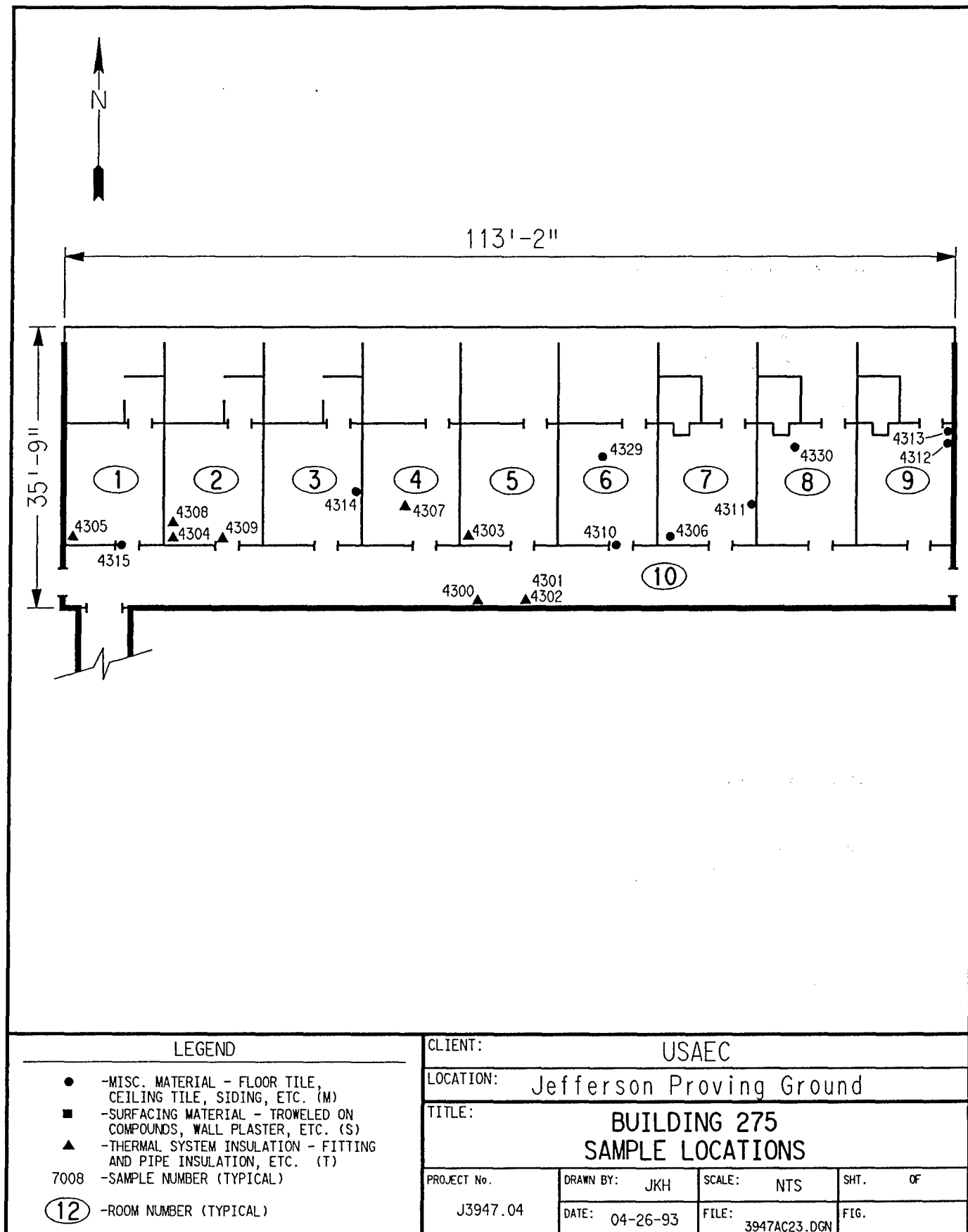
## 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating C**, there is damaged friable ACM distributed throughout the unoccupied building.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

## **5.0    ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be fair to good as noted above. Pipe insulations were observed to be friable, while other ACM was nonfriable. It is evident that, because of lack of maintenance, the TSI is deteriorating. If the building usage changes, removal or repairs are recommended.



# ACM Assessment Rating Summary

Damage Assessment	Building Number: 275	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1	ENTIRE BUILDING	Occupancy: Unoccupied
Physical:	MODERATE 3	Material Friability: MODERATE 2
Water:	MINOR 1	Occupant Accessibility to ACM: LOW 0
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: LOW 1
Pipe, Boiler, or Duct insulation:	YES 3	Air Stream/Plenum: ACM OCCASIONAL 2
Type ACM:	TSI NOT 1	Area of surface or damaged ACM: 10-100 LF 1
Percent Asbestos:	> 51% 3	Occupied Facility: N/A 0
		Unoccupied Facility: F DAMAGED 5
	<b>Total 11</b>	<b>Total 11</b>
ACM Assessment Rating: C		



# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 275					AMMO QUALITY FACILITY				
Location		Material			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
RM-01	TESTING/OPERATIONS	CB-01	NF	650 SF	<10	G	M		
	TESTING/OPERATIONS	PI-01	F	7 LF	<10	G	M		
	TESTING/OPERATIONS	FI-01	F	4 EA	<10	G	M		
	TESTING/OPERATIONS	PI-02	F	15 LF	<10	G	M		
	TESTING/OPERATIONS	FI-02	F	3 EA	<10	G	M		
	TESTING/OPERATIONS	MM-01	NF	650 SF	<10	G	M		
	TESTING/OPERATIONS								
RM-02	TESTING/OPERATIONS	CB-01	NF	650 SF	<10	G	M		
	TESTING/OPERATIONS	PI-01	F	11 LF	<10	G	M		
	TESTING/OPERATIONS	FI-01	F	2 EA	<10	G	M		
	TESTING/OPERATIONS	PI-02	F	15 LF	<10	G	M		
	TESTING/OPERATIONS	FI-02	F	2 EA	<10	G	M		
	TESTING/OPERATIONS	MM-01	NF	650 SF	<10	G	M		
	TESTING/OPERATIONS								
RM-03	TESTING/OPERATIONS	CB-01	NF	650 SF	<10	G	M		
	TESTING/OPERATIONS	PI-01	F	16 LF	<10	G	M		
	TESTING/OPERATIONS	FI-01	F	3 EA	<10	G	M		
	TESTING/OPERATIONS	MM-01	NF	650 SF	<10	G	M		
RM-04	TESTING/OPERATIONS	CB-01	NF	650 SF	<10	G	M		
	TESTING/OPERATIONS	PI-01	F	20 LF	<10	G	M		
	TESTING/OPERATIONS	FI-01	F	4 EA	<10	G	M		
	TESTING/OPERATIONS	PI-02	F	16 LF	<10	G	M		
	TESTING/OPERATIONS	FI-02	F	5 EA	<10	G	M		
	TESTING/OPERATIONS	MM-01	NF	650 SF	<10	G	M		
	TESTING/OPERATIONS	MM-03	NF	15 SF	<10	G	M		
	TESTING/OPERATIONS								
RM-05	TESTING/OPERATIONS	CB-01	NF	550 SF	<10	G	M		
	TESTING/OPERATIONS	PI-01	F	30 LF	<10	G	M		
	TESTING/OPERATIONS	FI-01	F	10 EA	<10	G	M		
	TESTING/OPERATIONS	PI-02	F	16 LF	10	D	M		
	TESTING/OPERATIONS	FI-02	F	3 EA	<10	G	M		
	TESTING/OPERATIONS	MM-01	NF	550 SF	<10	G	M		
	TESTING/OPERATIONS								
RM-06	TESTING/OPERATIONS	CB-01	NF	650 SF	<10	G	M		
	TESTING/OPERATIONS	PI-01	F	15 LF	<10	G	M		
	TESTING/OPERATIONS	FI-01	F	6 EA	<10	G	M		
Touch: F =Friable NF=Nonfriable			Extent: Percent of Damage			Potential: For Damage			
Amount: SF=Square Feet LF=Linear Feet			Assess: G=Good D=Damaged S=Significantly Damaged			L=Low M=Moderate H=High			
Inspector: HENDRICKSON, KAREN							Inspection Date: 03/02/93		

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 275		AMMO QUALITY FACILITY						
Location.....	Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes
RM-06	TESTING/OPERATIONS	PI-02	F	5 LF	<10	G	M	
	TESTING/OPERATIONS	MM-01	NF	650 SF	<10	G	M	
RM-07	TESTING/OPERATIONS	CB-01	NF	650 SF	<10	G	M	
	TESTING/OPERATIONS	PI-01	F	18 LF	10	D	M	
	TESTING/OPERATIONS	FI-01	F	4 EA	<10	G	M	
	TESTING/OPERATIONS	PI-02	F	11 LF	<10	G	M	
	TESTING/OPERATIONS	FI-02	F	3 EA	<10	G	M	
	TESTING/OPERATIONS	MM-01	NF	650 SF	<10	G	M	
RM-08	TESTING/OPERATIONS	CB-01	NF	600 SF	<10	G	M	
	TESTING/OPERATIONS	PI-01	F	17 LF	10	D	M	
	TESTING/OPERATIONS	FI-01	F	5 EA	<10	G	M	
	TESTING/OPERATIONS	PI-02	F	15 LF	<10	G	M	
	TESTING/OPERATIONS	FI-02	F	3 EA	<10	G	M	
	TESTING/OPERATIONS	MM-01	NF	600 SF	<10	G	M	
RM-09	TESTING/OPERATIONS	CB-01	NF	635 SF	<10	G	M	
	TESTING/OPERATIONS	PI-01	F	12 LF	10	D	M	
	TESTING/OPERATIONS	FI-01	F	3 EA	<10	G	M	
	TESTING/OPERATIONS	PI-02	F	5 LF	10	D	M	
	TESTING/OPERATIONS	MM-01	NF	635 SF	<10	G	M	
RM-10	HALLWAY	PI-01	F	125 LF	10	D	M	
	HALLWAY	PI-02	F	43 LF	10	D	M	
	HALLWAY	MM-02	NF	<2 SF	<10	G	M	
	HALLWAY	PI-03	F	10 LF	10	D	M	
SHED	SHED BEHIND ROOM 8				<10			
EXTERIOR	ROOF	RM-01	NF	4025 SF	<10	G	L	
RM-09	TESTING/OPERATIONS	FI-02	F	1 EA	<10	G	M	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 03/02/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 275	AMMO QUALITY FACILITY						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENT BOARD	TRANSITE-LIKE CEMENT BOARD	1.00	I	M	N	Y	4310 4311 4312	RM-06 RM-07 RM-09
FI-01	FITTING INSULATION	FITTINGS ON PI-01	1.00	I	T	Y	Y	4307	RM-04
FI-02		FITTING INSULATION ON PI-02	1.00	I	T	Y	Y	4306 4308 4309	RM-07 RM-02 RM-02
MM-01	MISCELLANEOUS	SOUND PROOF BATTING	0.50	M	N	Y	N	4313 4314 4315	RM-09 RM-03 RM-01
MM-02		ELECTRIC BOXES	0.50	I	M	N	ASSUMED		
MM-03	MISCELLANEOUS	PAPER BOARD COUNTER TOP	0.25	I	M	N	ASSUMED		
PI-01	PIPE INSULATION	AIR CELL TYPE	2.00	I	T	Y	Y	4301 4302	HALLWAY HALLWAY
PI-02		FELT WRAP TYPE	2.00	I	T	Y	N	4303 4304 4305	RM-05 RM-02 RM-01
PI-03		MAGNESIUM-TYPE	2.00	I	T	Y	Y	4300	HALLWAY
RM-01	ROOFING MATERIALS	BUILT-UP ROOFING	0.25	I	M	N	Y	4329 4330	EXTERIOR EXTERIOR

Units: I=Inches  
F=Feet

Friable: Y=Friable  
N=Nonfriable

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: HENDRICKSON, KAREN

Inspection Date: 03/02/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
275	4300	010	AMOS		40	ZMD
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	4301	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		65	
			CROCO	LT	1	
			TREACT	LT	1	
	4302	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	4303	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4304	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4305	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4306	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	4307	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	4308	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	4309	001	AMOS	LT	1	ZME
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
275	4310	002	AMOS	LT	1	ZME
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	4311	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	4312	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	4313	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4314	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4315	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4329	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4330	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		12	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 275		AMMO QUALITY FACILITY					
Location .....		Material .....		Cost Per Expense		Response Action	
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 BUILT-UP ROOFING	N	G	4025 SF	N/A	N/A	Operations & Maintenance
RM-01	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	650 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	G	7 LF	N/A	N/A	Operations & Maintenance
	FI-01 FITTINGS ON PI-01	Y	G	4 EA	N/A	N/A	Operations & Maintenance
	FI-02 FITTING INSULATION ON PI-02	Y	G	3 EA	N/A	N/A	Operations & Maintenance
RM-02	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	650 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	G	11 LF	N/A	N/A	Operations & Maintenance
	FI-01 FITTINGS ON PI-01	Y	G	2 EA	N/A	N/A	Operations & Maintenance
	FI-02 FITTING INSULATION ON PI-02	Y	G	2 EA	N/A	N/A	Operations & Maintenance
RM-03	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	650 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	G	16 LF	N/A	N/A	Operations & Maintenance
	FI-01 FITTINGS ON PI-01	Y	G	3 EA	N/A	N/A	Operations & Maintenance
RM-04	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	650 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	G	20 LF	N/A	N/A	Operations & Maintenance
	FI-01 FITTINGS ON PI-01	Y	G	4 EA	N/A	N/A	Operations & Maintenance
	FI-02 FITTING INSULATION ON PI-02	Y	G	5 EA	N/A	N/A	Operations & Maintenance
	MM-03 PAPER BOARD COUNTER TOP	N	G	15 SF	N/A	N/A	Operations & Maintenance
RM-05	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	550 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	G	30 LF	N/A	N/A	Operations & Maintenance
	FI-01 FITTINGS ON PI-01	Y	G	10 EA	N/A	N/A	Operations & Maintenance
	FI-02 FITTING INSULATION ON PI-02	Y	G	3 EA	N/A	N/A	Operations & Maintenance
RM-06	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	650 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	G	15 LF	N/A	N/A	Operations & Maintenance
	FI-01 FITTINGS ON PI-01	Y	G	6 EA	N/A	N/A	Operations & Maintenance
RM-07	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	650 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	D	18 LF	19.00 LF	102.60	Repairs Followed by O&M
	FI-01 FITTINGS ON PI-01	Y	G	4 EA	N/A	N/A	Operations & Maintenance
	FI-02 FITTING INSULATION ON PI-02	Y	G	3 EA	N/A	N/A	Operations & Maintenance
RM-08	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	600 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	D	17 LF	19.00 LF	96.90	Repairs Followed by O&M
	FI-01 FITTINGS ON PI-01	Y	G	5 EA	N/A	N/A	Operations & Maintenance
	FI-02 FITTING INSULATION ON PI-02	Y	G	3 EA	N/A	N/A	Operations & Maintenance
RM-09	CB-01 TRANSITE-LIKE CEMENT BOARD	N	G	635 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL TYPE	Y	D	12 LF	19.00 LF	68.40	Repairs Followed by O&M
	FI-01 FITTINGS ON PI-01	Y	G	3 EA	N/A	N/A	Operations & Maintenance
	FI-02 FITTING INSULATION ON PI-02	Y	G	1 EA	N/A	N/A	Operations & Maintenance
RM-10	PI-01 AIR CELL TYPE	Y	D	125 LF	19.00 LF	712.50	Repairs Followed by O&M
	MM-02 ELECTRIC BOXES	N	G	<2 SF	N/A	N/A	Operations & Maintenance
	PI-03 MAGNESIUM-TYPE	Y	D	10 LF	19.00 LF	57.00	Repairs Followed by O&M

## ACM Corrective Action Expense and Response Action Recommendations

Building: 275

AMMO QUALITY FACILITY

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	G	99 LF	\$ 0.00
PI	Pipe Insulation	D	182 LF	\$ 1037.40
FI	Fitting Insulation	G	61 EA	\$ 0.00
RM	Roofing Materials	G	4025 SF	\$ 0.00
CB	Cementous Board	G	5685 SF	\$ 0.00
MM	Misc. Materials	G	15 SF	\$ 0.00
				\$ 1037.40

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

Page 1 of 2

Date 2-2-93

2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume in Liters	7. Remarks
4300	Bulk Asbestos	2-2-93	275	
4301				
4302				
4303				
4304				
4305				
4306				
4307				
4308				
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Brad L. Picella	2-2-93	Asbestos	Steve Baker	2/5/93



ZME

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 2 of 2  
Date 2-2-93

1. Project No. J3947.04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Number	7. Remarks	8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
4309	Bulk Asbestos	2-2-93	275							
4310										
4311										
4312										
4313										
4314										
4315										
4329										
4330										
Brad C. Miller	2-2-93	Asbestos						STARR 2/5/93		Sample Control

# **BUILDING 276**

## **1.0 INTRODUCTION**

Building 276 was inspected for ACM by Syd Pincock (Indiana Inspector License No. 197723123) of Rust E&I on January 29, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ABCM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> 7008 -SAMPLE NUMBER (TYPICAL) <b>(12)</b> -ROOM NUMBER (TYPICAL)		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 276			
		PROJECT No. J3947.04	DRAWN BY: RFG DATE: 03-08-93	SCALE: NTS FILE: 3947AB80.DGN	SHT. OF FIG.

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 276		Exposure Assessment		
Functional Space Number: 1			AMMO STORAGE IGLOO		Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0		
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0		
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1		
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1		
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0		
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0		
			Unoccupied Facility:	N/A OR < 1%	0		
		Total	0			Total	0
ACM Assessment Rating: F , no ACM							

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 276

IGLOO STORAGE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	IGLOO STORAGE				<10			NO SUSPECT ACM MATERIAL

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 276

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 276

IGLOO STORAGE

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 277**

## **1.0 INTRODUCTION**

Building 277 was inspected for ACM by Mike McGovern (Indiana Building Inspector License No. 193015014) of Rust E&I on February 9, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 277 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction on a concrete slab at grade. The building has a built-up asphalt roof over a concrete deck.
- The building area is 5,961 square feet.
- The building is heated and cooled by a forced air ventilation system complete with multiple fan units and insulated ducts. Heat for this system is generated from the boiler located in Room 13. Cooling is generated from chillers within the building (exact location not reported by the inspector).
- The building interior is generally unfinished with the exception of vinyl floor tiles in one office (Room 9), on-conductive rubberized (black) floor covering throughout shop areas, and non-conductive matting on tabletops throughout the shop areas.
- No fireproofing or other structural coatings were observed.



## 2.2 Building Use

At the time of the inspection, a portion of the building was being used for storage and testing. Previously, this building was used as a small arms repair and assembly facility.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 370 square feet of corrugated cardboard ("aircell") duct insulation. This insulation was observed to be in poor condition with evidence of significant physical damage or material deterioration in Rooms 13 and 15.
- 242 linear feet of corrugated cardboard ("aircell") pipe insulation. This insulation was observed to be in fair to poor condition with evidence of physical damage or material deterioration and isolated instances of significant physical damage in Rooms 13 and 15.
- 650 linear feet of felt-wrap pipe insulation. This insulation was observed to be in fair condition with evidence of physical damage or material deterioration in Rooms 13 and 15.
- 75 areas of packed "fitting" insulation on a pipe otherwise insulated with corrugated cardboard or felt-wrap material. This insulation was observed to be in fair condition with evidence of physical damage or material deterioration in Rooms 13 and 15.
- 233 square feet of 9" x 9" brown vinyl floor tiles. These tiles were observed to be in fair condition with evidence of physical damage or material deterioration in Rooms 9 and 10.
- 4,185 square feet of roofing tars and felts. These tars and felts were assumed to be ACM and were inaccessible for inspection.

## 4.0 FUNCTIONAL SPACES

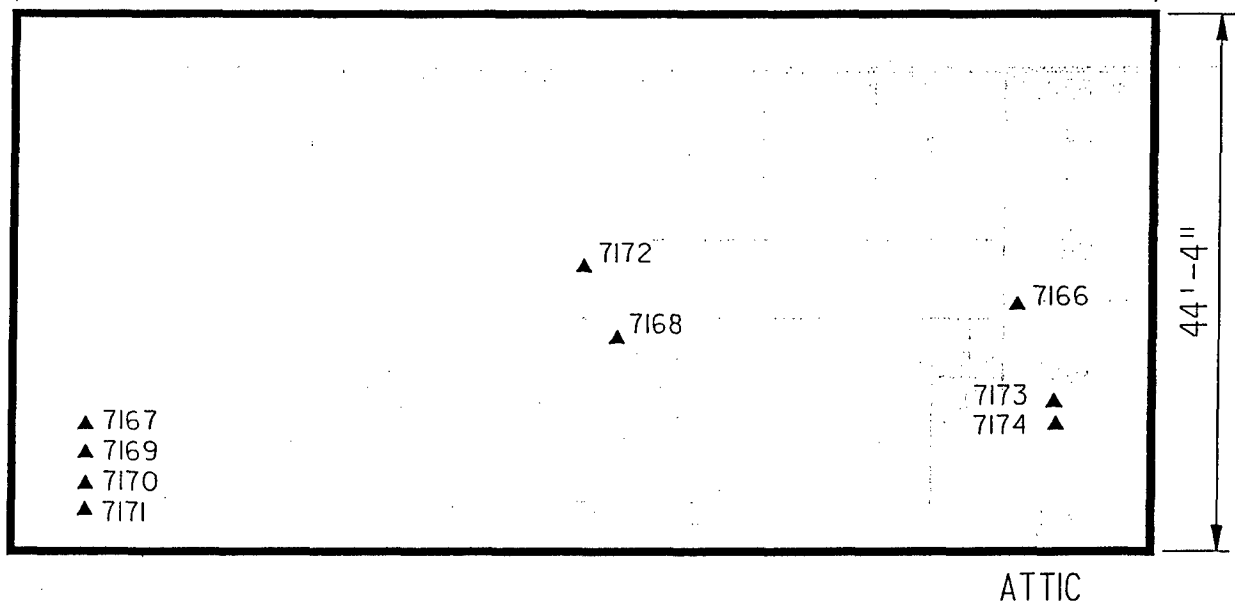
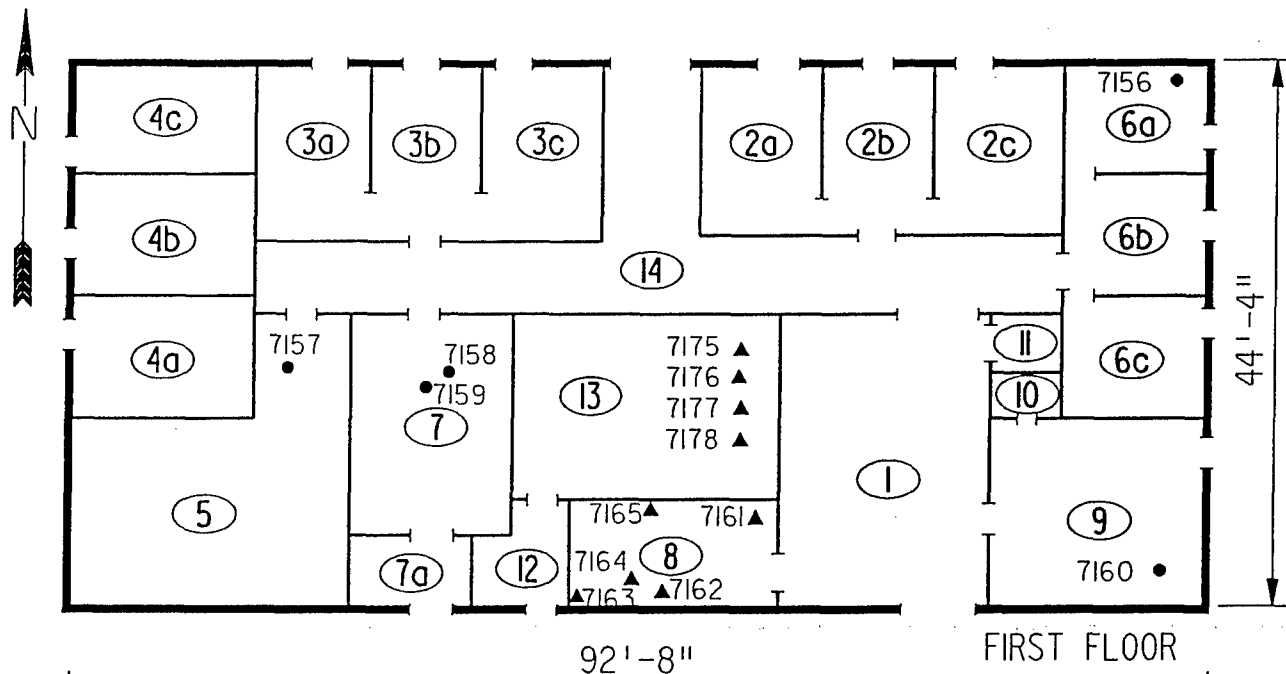
- #1 Rooms 1 through 12 and 14: **ACM Assessment Rating D**, there is a minimal amount of isolated damaged friable ACM in this unoccupied area.
- #2 Room 13 (Boiler Room): **ACM Assessment Rating C**, there is significant damage to friable TSI in this unoccupied area.
- #3 Room 15 (Attic): **ACM Assessment Rating C**, there is significant damage to friable TSI in this unoccupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of D calls for repair and initiation of a special

O&M program. Damaged areas should be repaired, where "repair" means returning damaged ACM to an undamaged condition to contain fiber release. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

## **5.0 ADDITIONAL COMMENTS**

Corrugated cardboard duct insulation observed in Rooms 13 and 15 (the attic) was determined to be ACM and significantly damaged. The pipes of the building's heating-system plumbing are coated with these materials. In nearly every room, these pipes run to overhead heaters with attached fan units. If these units were to be restarted, there could potentially be large amounts of contamination blown throughout the building. At the time of the inspection, the building's heating system was not operational. Quantities of the pipe insulation were estimated at 820 linear feet with 75 mudded fittings. Quantities of duct insulation were estimated at 370 linear feet. Duct insulation was quantified in linear feet, but it should be noted that this insulation is wrapped around a 36-inch high by 24-inch wide rectangular duct. Pipe insulations observed were determined to be ACM and damaged, or significantly damaged in isolated areas. Because these materials are extremely friable, building access should be strictly controlled, including posting of asbestos-specific warning signs, until ACM can be abated and the facility adequately decontaminated. A work permit system, including setting up work reviews and procedures, establishing personnel monitoring and personnel protective equipment requirements, and training all personnel accessing these areas, should be implemented.



#### LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- (12) -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 277  
SAMPLE LOCATIONS

PROJECT No.

J3947.04

DRAWN BY:

RFG

SCALE:

NTS

SHT. OF

DATE:

03-08-93

FILE:

3947AB81.DGN

FIG.

# ACM Assessment Rating Summary

Damage Assessment	Building Number: 277	Exposure Assessment
-------------------	----------------------	---------------------

Functional Space Number: 1 ROOMS 1-12 & 14

Occupancy: Unoccupied

Physical:	NONE	0
Water:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0
Pipe, Boiler, or Duct insulation:	YES	3
Type ACM:	TSI NOT	1
Percent Asbestos:	> 51%	3
		<hr/>
		Total 7

Material Friability:	MODERATE	2
Occupant Accessibility to ACM:	LOW	0
Activity/Use:	LOW	1
Air Stream/Plenum:	ACM OCCASIONAL	2
Area of surface or damaged ACM:	< 10 LF	0
Occupied Facility:	N/A	0
Unoccupied Facility:	F GOOD	3
		<hr/>
		Total 8

ACM Assessment Rating: D

Functional Space Number: 2 BOILER ROOM

Occupancy: Unoccupied

Physical:	HIGH	5
Water:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0
Pipe, Boiler, or Duct insulation:	YES	3
Type ACM:	TSI NOT	1
Percent Asbestos:	> 51%	3
		<hr/>
		Total 12

Material Friability:	HIGH	3
Occupant Accessibility to ACM:	LOW	0
Activity/Use:	LOW	1
Air Stream/Plenum:	ACM OCCASIONAL	2
Area of surface or damaged ACM:	10-100 LF	1
Occupied Facility:	N/A	0
Unoccupied Facility:	F DAMAGED	5
		<hr/>
		Total 12

ACM Assessment Rating: C

Functional Space Number: 3 ATTIC - ROOM 15

Occupancy: Unoccupied

Physical:	HIGH	5
Water:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0
Pipe, Boiler, or Duct insulation:	YES	3
Type ACM:	TSI NOT	1
Percent Asbestos:	> 51%	3
		<hr/>
		Total 12

Material Friability:	HIGH	3
Occupant Accessibility to ACM:	LOW	0
Activity/Use:	LOW	1
Air Stream/Plenum:	ACM OCCASIONAL	2
Area of surface or damaged ACM:	101-1000 LF	2
Occupied Facility:	N/A	0
Unoccupied Facility:	F DAMAGED	5
		<hr/>
		Total 13

ACM Assessment Rating: C

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 277

SMALL ARMS RP SHOP

Location.....		Material.....				Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount					
RM-01	STORAGE/TESTING	FT-01	NF	400 SF	<10		G	M	DISTRIBUTED DAMAGE THROUGHOUT WITH OVERALL DAMAGE OF <10%
RM-02A	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	TABLE CONDUCTIVE MATTING
	AMMO ROOM	MM-01	NF	600 SF	<10		G	M	
RM-02B	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	SAME AS ROOM 2A
	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	
RM-02C	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	SAME AS ROOM 2A, & 2B TABLE TOPS
	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	
RM-03A	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	TABLE TOPS
	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	
RM-03B	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	SAME AS ROOM 3A, & 3C TABLE TOPS CONDUCTIVE MAT
	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	
RM-03C	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	TABLE TOP CONDUCTIVE MAT SAME AS ROOM 3A, & 3B
	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	
RM-04A	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	SAME AS ROOM 4B,4C TABLE TOPS
	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	
RM-04B	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	TABLE TOPS SAME AS ROOM 4A,4C
	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	
RM-04C	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	SAME AS ROOM 4A,4B TABLE TOPS
	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	
RM-05	AMMO ROOM	MM-01	NF	120 SF	<10		G	M	CONDUCTIVE TABLE TOPS
	AMMO ROOM	FT-01	NF	345 SF	<10		G	M	
RM-06A	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	SAME AS ROOM 6B,6C CONDUCTIVE TABLE TOPS
	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	
RM-06B	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	CONDUCTIVE TABLE TOPS SAME AS ROOM 6A
	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	
RM-06C	AMMO ROOM	FT-01	NF	140 SF	<10		G	M	SAME AS ROOM 6A,6B CONDUCTIVE TABLE TOPS
	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	
RM-07	AMMO ROOM	MM-01	NF	60 SF	<10		G	M	
	AMMO ROOM	FT-01	NF	234 SF	<10		G	M	
RM-07A	HALLWAY	FT-01	NF	50 SF	<10		G	M	

Touch: F = Friable  
NF = Nonfriable

Extent: Percent of Damage

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Amount: SF = Square Feet  
LF = Linear Feet

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Inspector: McGOVERN, MIKE

Inspection Date: 02/09/93

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 277

SMALL ARMS RP SHOP

Location.....		Material.....								Notes
Code	Use	Code	Touch	Amount	Extent	Assess	Potential			
RM-08	RESTROOM	PI-01	F	22	LF	<10	G	M		
		PI-02	F	20	LF	<10	G	M		
RM-09	OFFICE	FT-02	NF	208	SF	10	D	M		
RM-10	CLOSET	FT-02	NF	25	SF	10	D	M		
RM-11	CLOSET	FT-01	NF	25	SF	<10	G	M		
RM-12	FOYER	PI-02	F	30	LF	10	D	M		
RM-13	BOILER ROOM	DI-01	F	70	LF	>25	S	M	SIGNIFICANT DAMAGE	
	BOILER ROOM	PI-01	F	20	LF	<25	D	M		
	BOILER ROOM	PI-02	F	100	LF	<25	D	M		
	BOILER ROOM	FI-01	F	20	EA	10	D	M		
RM-14	HALLWAY	FT-01	NF	384	SF	<10	G	M		
RM-15	ATTIC	DI-01	F	300	LF	>25	S	M	SIGNIFICANT DAMAGE SIGNIFICANT DAMAGE	
	ATTIC	PI-01	F	200	LF	>25	S	M		
	ATTIC	PI-02	F	500	LF	<25	D	M		
	ATTIC	FI-01	F	55	EA	<25	D	M		
EXTERIOR	ROOF	RM-01	NF	4185	SF	<10	G	L	BUILT UP ROOFING MATERIALS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: McGOVERN, MIKE

Inspection Date: 02/09/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

Building Number: 277

SMALL ARMS RP SHOP

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
DI-01	DUCT INSULATION	AIRCELL DUCT TSI	0.50	I	T	Y	Y	7166 7167 7168	ATTIC ATTIC ATTIC
FI-01	FITTING INSULATION	FITTING INSULATION (PLASTER)	1.00	I	T	Y	Y	7175 7176 7178	RM-13 RM-13 RM-13
FT-01	FLOOR MATTING	CONDUCTIVE BLACK RUBBER LIKE ON FLOORS	0.13	I	M	N	N	7157 7158 7159	RM-05 RM-07 RM-07
FT-02	FLOOR TILE	9" X 9" BROWN	0.13	I	M	N	Y	7160	RM-09
MM-01	CONDUCTIVE MATTING	BLACK RUBBER LIKE ON TABLES & COUNTERS	0.13	I	M	N	N	7156	RM-06A
PI-01	PIPE INSULATION	AIRCELL TSI	1.00	I	T	Y	Y	7162 7165 7171 7174 7177	RM-08 RM-08 ATTIC ATTIC RM-13
PI-02		FELT WRAP TSI	1.00	I	T	Y	Y	7161 7163 7164 7169 7170 7172 7173	RM-08 RM-08 RM-08 ATTIC ATTIC ATTIC ATTIC
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP=No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: McGOVERN, MIKE

Inspection Date: 02/09/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
277	7156	019	AMOS	LT	1	ZPR
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7157	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7158	021	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7159	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7160	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		41	
			CROCO	LT	1	
			TREACT	LT	1	
	7161	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	7162	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	7163	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7164	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7165	001	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
277	7166	002	AMOS	LT	1	ZPR
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	7167	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	7168	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	7169	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7170	006	AMOS		20	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	7171	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	7172	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7173	009	AMOS		10	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	7174	023	AMOS	LT	1	ZPQ
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	7175	024	AMOS		30	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
277	7175	024	TREACT	LT	1	ZPQ
	7176	025	AMOS		30	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	7177	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	7178	027	AMOS		30	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 277

SMALL ARMS RP SHOP

Location Code	Material Code	Description	Friable	Condition	Amount	Cost Per Unit	Expense Estimate	Response Action Recommendation
EXTERIOR	RM-01	TARS, AND FELTS	N	G	4185 SF	N/A	N/A	Operations & Maintenance
RM-08	PI-01	AIRCELL TSI	Y	G	22 LF	N/A	N/A	Operations & Maintenance
	PI-02	FELT WRAP TSI	Y	G	20 LF	N/A	N/A	Operations & Maintenance
RM-09	FT-02	9" X 9" BROWN	N	D	208 SF	4.00 SF	249.60	Repairs Followed by O&M
RM-10	FT-02	9" X 9" BROWN	N	D	25 SF	4.00 SF	30.00	Repairs Followed by O&M
RM-12	PI-02	FELT WRAP TSI	Y	D	30 LF	19.00 LF	171.00	Repairs Followed by O&M
RM-13	DI-01	AIRCELL DUCT TSI	Y	S	70 LF	19.00 SF	1330.00	Removal
	PI-01	AIRCELL TSI	Y	D	20 LF	19.00 LF	114.00	Repairs Followed by O&M
	PI-02	FELT WRAP TSI	Y	D	100 LF	19.00 LF	570.00	Repairs Followed by O&M
	FI-01	FITTING INSULATION (PLASTER)	Y	D	20 EA	32.00 EA	192.00	Repairs Followed by O&M
RM-15	DI-01	AIRCELL DUCT TSI	Y	S	300 LF	19.00 SF	5700.00	Removal
	PI-01	AIRCELL TSI	Y	S	200 LF	19.00 LF	3800.00	Removal
	PI-02	FELT WRAP TSI	Y	D	500 LF	19.00 LF	2850.00	Repairs Followed by O&M
	FI-01	FITTING INSULATION (PLASTER)	Y	D	55 EA	32.00 EA	528.00	Repairs Followed by O&M

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	D	233 SF	\$ 279.60
PI	Pipe Insulation	G	42 LF	\$ 0.00
PI	Pipe Insulation	D	650 LF	\$ 3705.00
PI	Pipe Insulation	S	200 LF	\$ 3800.00
FI	Fitting Insulation	D	75 EA	\$ 720.00
DI	Duct Insulation	S	370 LF	\$ 7030.00
RM	Roofing Materials	G	4185 SF	\$ 0.00

\$ 15534.60

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 1 of 3  
Date 2-9-93

1. Project No. J3947.04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks	8. Relinquished By	Date	Department
7156	PLM-BULK	2-9-93	Bldg. 277	MM			
7157				MM			
7158				MM			
7159				MM			
7160				MM			
7161				MM			
7162				MM			
7163				MM			
7164				MM			
8. Relinquished By							
M. McDevem	2-9-93	Asbestos	MM	2-15-93			Sample Rec

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 2 of 3  
Date 2-9-93

1. Project No. J3947.04 2. Project Name JPG

277-14

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

Page 3 of 3  
 Date 2-9-93

CHAIN OF SAMPLE CUSTODY

1. Project No. J3947.04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <sup>SITE</sup> I.D.	7. Remarks
7174	PLM-BULK	2-9-93	Bldg. 277	MM
7175				MM
7176				MM
7177				MM
7178				MM
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
M. McJannet	2-9-93	Asbestos	Manoia DCI	2-15-93
				Sample Rec

# **BUILDING 278**

## **1.0 INTRODUCTION**

Building 278 was inspected for ACM by Syd Pincock (Indiana Inspector License No. 197723123) of Rust E&I on January 30, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 278			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
7008	-SAMPLE NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AB82.DGN	FIG.
⑫	-ROOM NUMBER (TYPICAL)				



# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 278	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1			AMMO STORAGE IGLOO			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0			
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1			
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1			
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	< 1 %	0	Occupied Facility:	N/A	0			
			Unoccupied Facility:	N/A OR < 1 %	0			
			<b>Total</b>			<b>Total</b>		
ACM Assessment Rating: F , no ACM			0			0		

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 278			IGLOO STORAGE						
.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INT/EXT	IGLOO STORAGE				<10			NO SUSPECT ACM MATERIALS	

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PINCOCK, SYD

Inspection Date: 01/30/93

# **BUILDING 279**

## **1.0 INTRODUCTION**

Building 279 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on January 31, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 279 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete frame construction on a concrete slab at grade containing 2,804 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the central boiler plant.
- The building interior is finished with various styles of acoustical ceiling panels/tiles, and vinyl floor tiles.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with asphalt-based roofing tars and felts.

## 2.2 Building Use

At the time of inspection, the building was being used as the German National ordnance administration facility. This facility was also used by Rust E&I as the inspection headquarters. However, this building is typically not occupied.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 400 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration distributed throughout the building.
- 117 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration distributed throughout the building.
- 182 linear feet of felt-wrap pipe insulation. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Rooms 2, 3, 5, 6, 7, and 8.
- 42 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Rooms 5, 6, and 8.
- 2,272 square feet of 9" x 9" brown/beige vinyl floor tiles. These tiles were observed to be in good condition in Room 1 (storage/sewing room), and in fair condition with evidence of physical damage or material deterioration in Room 2 (office).
- 819 square feet of 9" x 9" dark brown vinyl floor tiles. These tiles were observed to be in good condition.
- 3,600 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

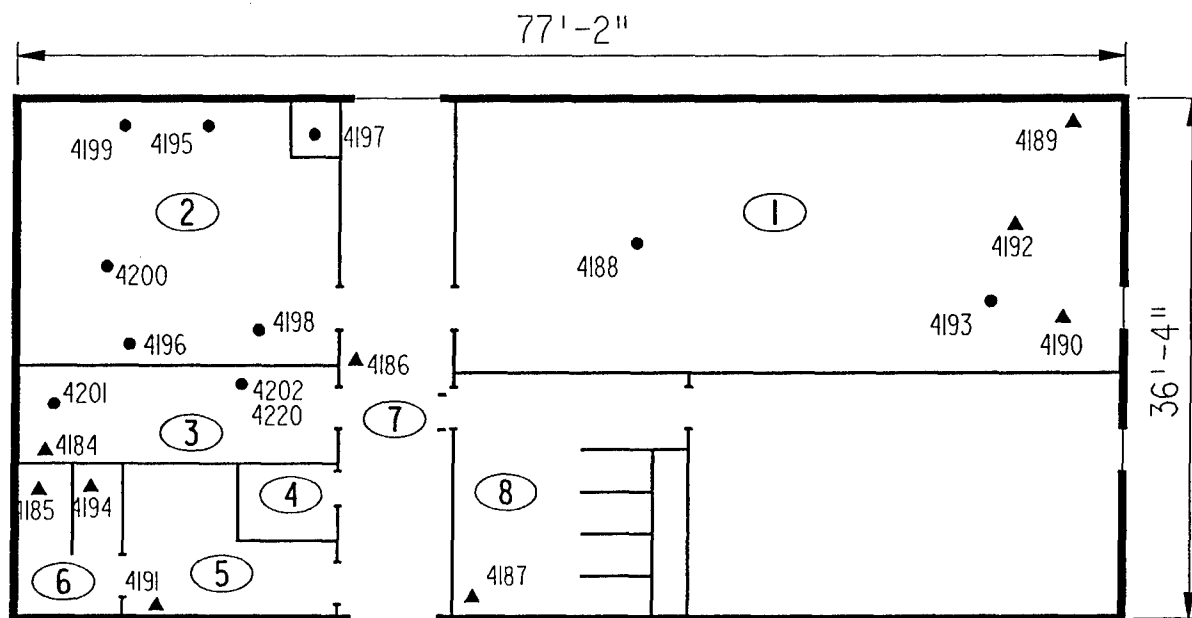
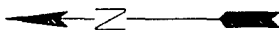
## 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating C**, there is damaged friable TSI distributed in this unoccupied building.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

## **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be fair to good with the noted exceptions above. Pipe insulations were observed to be friable, while other ACMs were nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 279 SAMPLE LOCATIONS			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No. J3947.04	DRAWN BY: RFG	SCALE: NTS	SHT. OF
			DATE: 03-08-93	FILE: 3947AB83.DGN	FIG.

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 278

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/30/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 278

IGLOO STORAGE

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 279		Exposure Assessment
----------------------	----------------------	--	------------------------

Functional Space Number: 1			ENTIRE BUILDING			Occupancy: Unoccupied		
Physical:	MINIMAL	1	Material Friability:	MODERATE	2			
Water:	MINOR	1	Occupant Accessibility to ACM:	MODERATE	1			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1			
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL	2			
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	10-100 LF	1			
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A	0			
			Unoccupied Facility:	F DAMAGED	5			
Total			Total					
10			12					
ACM Assessment Rating: C								

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 279

ORD ADMIN BUILDING

Location.....		Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
RM-01	STORAGE/SEWING ROOM	FT-01	NF	1600 SF	<10	G	L	MASTIC USED ON FT-01
	STORAGE/SEWING ROOM	MA-01	NF	1600 SF	<10	G	L	
	STORAGE/SEWING ROOM	CT-01	F	1600 SF	10	D	M	
	STORAGE/SEWING ROOM	CT-02	F	10 SF	<10	G	M	
	STORAGE/SEWING ROOM	PI-01	F	192 LF	10	D	M	
	STORAGE/SEWING ROOM	FI-01	F	58 EA	10	D	M	
RM-02	OFFICE	FT-01	NF	672 SF	<10	G	M	BELOW FT-01 WATER DAMAGE
	OFFICE	FT-02	NF	672 SF	<10	G	L	
	OFFICE	CT-01	F	672 SF	<10	G	M	
	OFFICE	CT-03	F	12 SF	<10	G	M	
	OFFICE	MA-01	NF	672 SF	<10	G	L	
	OFFICE	MA-02	NF	672 SF	<10	G	L	BELOW FLOOR TILE BELOW FLOOR TILE
	OFFICE	PI-01	F	96 LF	10	D	M	
	OFFICE	PI-02	F	25 LF	<10	G	M	
	OFFICE	FI-01	F	32 EA	10	D	M	
	OFFICE	FI-02	F	4 EA	<10	G	M	
RM-03	STORAGE	FT-02	NF	147 SF	<10	G	L	
	STORAGE	MA-02	NF	147 SF	<10	G	L	
	STORAGE	PI-01	F	22 LF	10	D	M	
	STORAGE	PI-02	F	7 LF	10	D	M	
	STORAGE	FI-01	F	5 EA	10	D	M	
RM-04	CLOSET/STORAGE	PI-02	F	7 LF	<10	G	M	
RM-05	STORAGE	PI-01	F	12 LF	10	D	M	
	STORAGE	PI-02	F	7 LF	10	D	M	
	STORAGE	FI-02	F	7 EA	10	D	M	
	STORAGE	FI-01	F	9 EA	10	D	M	
RM-06	RESTROOM	FI-01	F	4 EA	10	D	M	
	RESTROOM	FI-02	F	12 EA	10	D	M	
	RESTROOM	PI-02	F	47 LF	10	D	M	
	RESTROOM	PI-01	F	30 LF	10	D	M	
RM-07	HALLWAY	PI-01	F	21 LF	10	D	M	
	HALLWAY	PI-02	F	6 LF	10	D	M	
	HALLWAY	FI-01	F	3 EA	10	D	M	
RM-08	OLD RESTROOM/CHANGE ROOM	FI-01	F	6 EA	10	D	M	
	OLD RESTROOM/CHANGE ROOM	FI-02	F	19 EA	10	D	M	
	OLD RESTROOM/CHANGE ROOM	PI-01	F	27 LF	10	D	M	
	OLD RESTROOM/CHANGE ROOM	PI-02	F	83 LF	10	D	M	
	OLD RESTROOM/CHANGE ROOM							
RM-09	RESTRICTED AREA	-			<10			NO ACCESS OBTAINED
EXTERIOR	ROOF	RM-01	NF	3600 SF	<10	G	L	BUILT UP ROOFING MATERIALS

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: HENDRICKSON, KAREN

Inspection Date: 01/31/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 279			ORD ADMIN BUILDING						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CT-01	CEILING TILE	12" X 12" WHITE SMALL HOLES	0.50	I	M	Y	N	4193	RM-01
								4196	RM-02
CT-02		12" X 12" WHITE REPLACEMENT LARGE HOLES	0.50	I	M	Y	N	4188	RM-01
CT-03		12" X 12" SMOOTH WHITE	0.50	I	M	Y	N	4195	RM-02
FI-01	FITTING INSULATION	ON AIRCELL	1.00	I	T	Y	Y	4189	RM-01
								4190	RM-01
								4191	RM-05
FI-02		ON FELT WRAP	1.00	I	T	Y	Y	4194	RM-06
FT-01	FLOOR TILE	9" X 9" BROWN/BEIGE	0.25	I	M	N	Y	4197	RM-02
								4198	RM-02
								4199	RM-02
FT-02		9" X 9" DARK BROWN	0.25	I	M	N	Y	4200	RM-02
								4201	RM-03
								4202	RM-03
								4220	RM-03
MA-01	MASTIC	ON FT-01	1.00	I	T	Y	Y	4192	RM-01
MA-02		MASTIC ON FT-02	0.25	I	M	N	ASSUMED		
PI-01	PIPE INSULATION	AIR CELL	1.00	I	T	Y	Y	4184	RM-03
PI-02		FELT WRAP	1.00	I	T	Y	Y	4185	RM-06
								4186	RM-07
								4187	RM-08
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: HENDRICKSON, KAREN

Inspection Date: 01/31/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
279	4184	019	AMOS	LT	1	ZLB
			ANPHO	LT	1	
			CHRY		35	
			CROCO	LT	1	
			TREACT	LT	1	
	4185	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	4186	021	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4187	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4188	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4189	024	AMOS		5	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	4190	025	AMOS		5	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	4191	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	4192	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		4	
			CROCO	LT	1	
			TREACT	LT	1	
	4193	021	AMOS	LT	1	ZLA
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
279	4194	022	AMOS		35	ZLA
			ANPHO	LT	1	
			CHRY		35	
			CROCO	LT	1	
			TREACT	LT	1	
	4195	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4196	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4197	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		19	
			CROCO	LT	1	
			TREACT	LT	1	
	4198	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4199	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		22	
			CROCO	LT	1	
			TREACT	LT	1	
	4200	028	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		41	
			CROCO	LT	1	
			TREACT	LT	1	
	4201	029	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4202	025	AMOS	LT	1	ZLG
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	4220	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
279	4220	026	TREACT	LT	1	ZLG

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRYS=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 279

ORD ADMIN BUILDING

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 TARS, AND FELTS	N	G	3600 SF	N/A	N/A	Operations & Maintenance
RM-01	FT-01 9" X 9" BROWN/BEIGE	N	G	1600 SF	N/A	N/A	Operations & Maintenance
	MA-01 ON FT-01	Y	G	1600 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL	Y	D	192 LF	19.00 LF	1094.40	Repairs Followed by O&M
	FI-01 ON AIRCELL	Y	D	58 EA	32.00 EA	556.80	Repairs Followed by O&M
RM-02	FT-01 9" X 9" BROWN/BEIGE	N	G	672 SF	N/A	N/A	Operations & Maintenance
	FT-02 9" X 9" DARK BROWN	N	G	672 SF	N/A	N/A	Operations & Maintenance
	MA-01 ON FT-01	Y	G	672 SF	N/A	N/A	Operations & Maintenance
	MA-02 MASTIC ON FT-02	N	G	672 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL	Y	D	96 LF	19.00 LF	547.20	Repairs Followed by O&M
	PI-02 FELT WRAP	Y	G	25 LF	N/A	N/A	Operations & Maintenance
	FI-01 ON AIRCELL	Y	D	32 EA	32.00 EA	307.20	Repairs Followed by O&M
	FI-02 ON FELT WRAP	Y	G	4 EA	N/A	N/A	Operations & Maintenance
RM-03	FT-02 9" X 9" DARK BROWN	N	G	147 SF	N/A	N/A	Operations & Maintenance
	MA-02 MASTIC ON FT-02	N	G	147 SF	N/A	N/A	Operations & Maintenance
	PI-01 AIR CELL	Y	D	22 LF	19.00 LF	125.40	Repairs Followed by O&M
	PI-02 FELT WRAP	Y	D	7 LF	19.00 LF	39.90	Repairs Followed by O&M
	FI-01 ON AIRCELL	Y	D	5 EA	32.00 EA	48.00	Repairs Followed by O&M
RM-04	PI-02 FELT WRAP	Y	G	7 LF	N/A	N/A	Operations & Maintenance
RM-05	PI-01 AIR CELL	Y	D	12 LF	19.00 LF	68.40	Repairs Followed by O&M
	PI-02 FELT WRAP	Y	D	7 LF	19.00 LF	39.90	Repairs Followed by O&M
	FI-02 ON FELT WRAP	Y	D	7 EA	32.00 EA	67.20	Repairs Followed by O&M
	FI-01 ON AIRCELL	Y	D	9 EA	32.00 EA	86.40	Repairs Followed by O&M
RM-06	FI-01 ON AIRCELL	Y	D	4 EA	32.00 EA	38.40	Repairs Followed by O&M
	FI-02 ON FELT WRAP	Y	D	12 EA	32.00 EA	115.20	Repairs Followed by O&M
	PI-02 FELT WRAP	Y	D	47 LF	19.00 LF	267.90	Repairs Followed by O&M
	PI-01 AIR CELL	Y	D	30 LF	19.00 LF	171.00	Repairs Followed by O&M
RM-07	PI-01 AIR CELL	Y	D	21 LF	19.00 LF	119.70	Repairs Followed by O&M
	PI-02 FELT WRAP	Y	D	6 LF	19.00 LF	34.20	Repairs Followed by O&M
	FI-01 ON AIRCELL	Y	D	3 EA	32.00 EA	28.80	Repairs Followed by O&M
RM-08	FI-01 ON AIRCELL	Y	D	6 EA	32.00 EA	57.60	Repairs Followed by O&M
	FI-02 ON FELT WRAP	Y	D	19 EA	32.00 EA	182.40	Repairs Followed by O&M
	PI-01 AIR CELL	Y	D	27 LF	19.00 LF	153.90	Repairs Followed by O&M
	PI-02 FELT WRAP	Y	D	83 LF	19.00 LF	473.10	Repairs Followed by O&M

## ACM Corrective Action Expense and Response Action Recommendations

Building: 279

ORD ADMIN BUILDING

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	G	3091 SF	\$ 0.00
MA	Mastic	G	3091 SF	\$ 0.00
PI	Pipe Insulation	G	32 LF	\$ 0.00
PI	Pipe Insulation	D	550 LF	\$ 3135.00
FI	Fitting Insulation	G	4 EA	\$ 0.00
FI	Fitting Insulation	D	155 EA	\$ 1488.00
RM	Roofing Materials	G	3600 SF	\$ 0.00

\$ 4623.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 1 of 3  
 Date 1-30-93

1. Project No. J 3947.04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volumes In Liters/Number	7. Remarks	
4184	Bulk Asbestos	1-30-93	279		
4185		1-30-93	279		
4186		1-30-93	279		
4187		1-30-93	279		
4188		1-30-93	279		
4189		1-30-93	279		
4190		1-30-93	279		
4191		1-30-93	279		
4192		1-30-93	279		
8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
Earl C Smith	1-30-93	Asbestos	Harmon Dean/DCI	2-2-93	Sample Rec-

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 2 of 3  
 Date 1-30-93

1. Project No. J3947,04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volumes In Liters Number	7. Remarks	
4193	Bulk Asbestos	1-30-93	279		
4194			279		
4195			279		
4196			279		
4197			279		
4198			279		
4199			279		
4200			279		
4201			279		
8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
Frank & Smith	1-30-93	Asbestos	Manahan	2-2-93	Small Stone

## CHAIN OF SAMPLE CUSTODY

Page 3 of 3  
Date 1-30-93

1. Project No. J3947.04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Number	7. Remarks
4202	Bulk Asbestos	1-30-93	279	
4220	"	"	"	
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Brad Phillips	1-30-93	Asbestos	Manan Dey/DOL	2-2-93
				Spec. Rec.

# **BUILDING 280**

## **1.0 INTRODUCTION**

Building 280 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 112 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 105 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

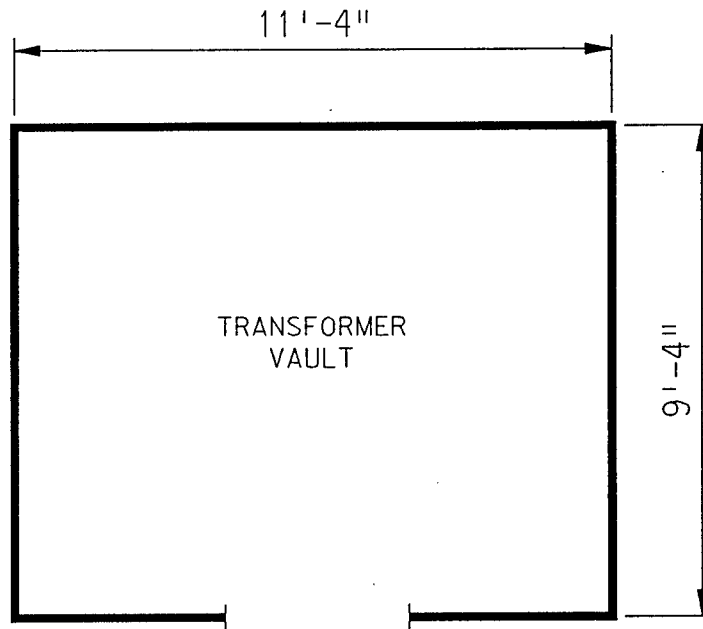
### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments.

### 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS  
 ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		TITLE: BUILDING 280 BUILDING LAYOUT			
PROJECT No. J3947.04		DRAWN BY: MLC	SCALE: NTS	SHT. OF	
		DATE: 03-11-93	FILE: 3947AB84.DGN	FIG.	

# ACM Assessment Rating Summary

Damage Assessment	Building Number: 280	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1	ENTIRE BUILDING	Occupancy: Unoccupied
Physical:	NONE 0	Material Friability: NF 0
Water:	NONE 0	Occupant Accessibility to ACM: LOW 0
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: NONE 0
Pipe, Boiler, or Duct insulation:	NO 0	Air Stream/Plenum: ACM OCCASIONAL 2
Type ACM:	NF, GOOD 0	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	1-30% 1	Occupied Facility: N/A 0
		Unoccupied Facility: NF GOOD 1
	<b>Total 0</b>	<b>Total 0</b>
ACM Assessment Rating: F		

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	<2 SF	<10	G	L	POSSIBLE TRANSITE INSULATORS INSIDE ELECTRIC BOXES	
EXTERIOR	ROOF	RM-01	NF	105 SF	<10	G	L	SHINGLES, FELTS AND TARS	

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 280

TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	AMMO QUALITY FAC.	NO SUSPECT MATERIALS	0.00			N	NOSUSP		
MM-01	ELECTRICAL PANELS	TRANSITE TRANSFORMER INSULATOR MOUNTING PANELS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 280				TRANSFORMER HOUSE			
Location .....		Material.....		Cost Per Expense		Response Action	
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
		EXTERIOR RM-01 SHINGLES, FELTS, AND TARS	N	G	105 SF	N/A	N/A Operations & Maintenance
		INTERIOR MM-01 TRANSITE TRANSFORMER INSULATOR	N	G	<2 SF	N/A	N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	105 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 281**

## **1.0 INTRODUCTION**

Building 281 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on March 1, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 281 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete frame construction on concrete slab at grade containing 14,129 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the building's boiler.
- The building is insulated in some rooms with soundproofing by fiberglass batts.
- The building interior is finished with cement board ("Transite") interior and exterior wall and ceiling panels, and miscellaneous wallboard panels.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with asphalt-based roofing tars and felts.

## 2.2 Building Use

At the time of inspection, the building was being used as a small arms firing range.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 10 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration.
- 362 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Rooms 1, 5, and 9.
- 76 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Room 9 (hallway).
- 76 linear feet of felt-wrap. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration in Room 9 (hallway).
- 7 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. This insulation was observed to be in fair to good condition with evidence of localized physical damage or material deterioration.
- 40 cubic feet of interior boiler insulations in Room 14. These materials were inaccessible for inspection, but were assumed to be in satisfactory condition.
- 5,830 square feet of cement board ("Transite") interior wall and ceiling panels. These panels were observed to be in generally good condition with minor areas of isolated damage in Room 1.
- 1,062 square feet of cement board ("Transite") exterior panels. These panels were observed to be in generally good condition with minor areas of isolated damage.
- 12,250 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.
- Less than 5 square feet of cement board ("Transite") electrical panel insulators. These insulators were observed to be in good condition.

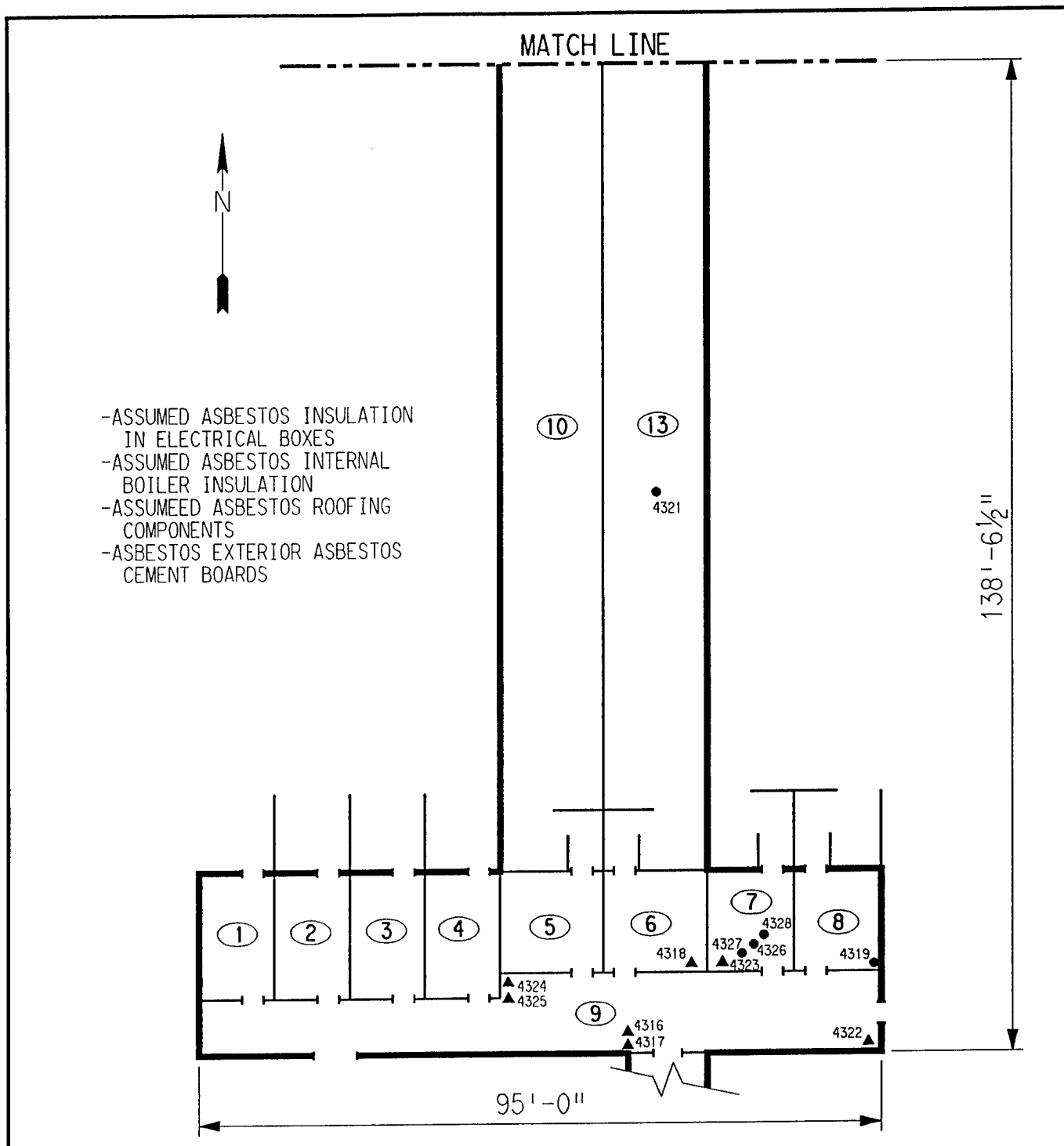
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: ACM Assessment Rating C, there is damaged friable ACM in an unoccupied area.

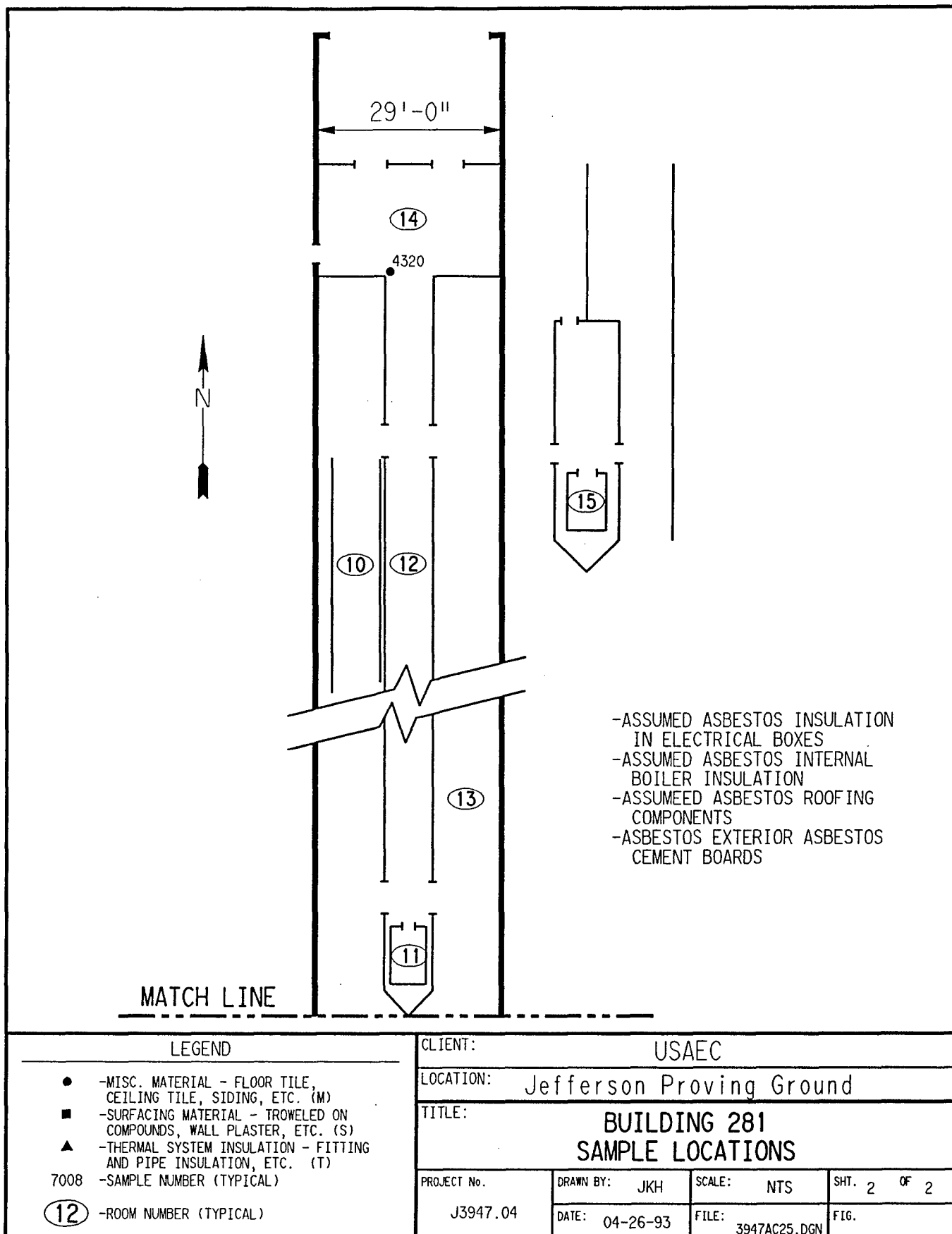
The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

#### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be fair to good as noted above. Pipe insulations were observed to be friable, while other ACMs were nonfriable.



LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 281 SAMPLE LOCATIONS			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)	PROJECT No.		DRAWN BY: JKH	SCALE: NTS
7008	-SAMPLE NUMBER (TYPICAL)	J3947.04		DATE: 04-26-93	SHT. 1 OF 2
(12)	-ROOM NUMBER (TYPICAL)			FILE: 3947AC24.DGN	FIG.



# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 281</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number: 1</b>	<b>ENTIRE BUILDING</b>		<b>Occupancy: Unoccupied</b>	
Physical:	MODERATE	3	Material Friability:	MODERATE 2
Water:	MINOR	1	Occupant Accessibility to ACM:	MODERATE 1
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE 0
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	10-100 LF 1
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A 0
			Unoccupied Facility:	F DAMAGED 5
	<b>Total</b>	<b>12</b>	<b>Total</b>	<b>11</b>
<b>ACM Assessment Rating: C</b>				



# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 281				AMMO QUALITY FACILITY				
Location	Material							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes
RM-01	OPERATIONS/TESTING	CB-01	NF	550 SF	10	D	M	
	OPERATIONS/TESTING	PI-01	F	15 LF	10	D	M	
	OPERATIONS/TESTING	FI-01	F	2 EA	<10	G	M	
	OPERATIONS/TESTING	MM-01	NF	550 SF	<10	G	M	
RM-02	OPERATIONS/TESTING	CB-01	NF	680 SF	<10	G	M	
	OPERATIONS/TESTING	PI-01	F	17 LF	<10	G	M	
	OPERATIONS/TESTING	FI-01	F	2 EA	<10	G	M	
	OPERATIONS/TESTING	MM-01	NF	680 SF	<10	G	L	
RM-03	NO ACCESS - SAME SIZE AS 2	CB-01	NF	680 SF	<10	G	M	NO ACCESS - MATERIALS ASSUMED TO BE PRESENT IN SAME QUANTITIES AND CONDITION AS ADJACENT ROOMS
	NO ACCESS - SAME SIZE AS 2	PI-01	F	20 LF	<10	G	M	
	NO ACCESS - SAME SIZE AS 2	FI-01	F	4 EA	<10	G	M	
	NO ACCESS - SAME SIZE AS 2	MM-01	NF	680 SF	<10	G	M	
RM-04	NO ACCESS - SAME SIZE AS 2	CB-01	NF	680 SF	<10	G	M	
	NO ACCESS - SAME SIZE AS 2	PI-01	F	20 LF	<10	G	M	
	NO ACCESS - SAME SIZE AS 2	FI-01	F	4 EA	<10	G	M	
	NO ACCESS - SAME SIZE AS 2	MM-01	NF	680 SF	<10	G	M	
RM-05	OPERATIONS/TESTING	CB-01	NF	580 SF	<10	G	L	
	OPERATIONS/TESTING	PI-01	F	17 LF	10	D	M	
	OPERATIONS/TESTING	FI-01	F	3 EA	<10	G	M	
	OPERATIONS/TESTING	PI-02	F	18 LF	<10	G	M	
	OPERATIONS/TESTING	FI-02	F	1 EA	<10	G	M	
	OPERATIONS/TESTING	MM-01	NF	580 SF	<10	G	L	
RM-06	OPERATIONS/TESTING	CB-01	NF	624 SF	<10	G	M	
	OPERATIONS/TESTING	PI-01	F	9 LF	<10	G	M	
	OPERATIONS/TESTING	FI-01	F	1 EA	<10	G	M	
	OPERATIONS/TESTING	PI-02	F	18 LF	<10	G	M	
	OPERATIONS/TESTING	FI-02	F	2 LF	<10	G	M	
	OPERATIONS/TESTING	MM-01	NF	624 SF	<10	G	M	
RM-07	OPERATIONS/TESTING	CB-01	NF	624 SF	<10	G	M	
Touch: F =Friable NF=Nonfriable			Extent: Percent of Damage				Potential: For Damage L=Low M=Moderate H=High	
Amount: SF=Square Feet LF=Linear Feet			Assess: G=Good D=Damaged S=Significantly Damaged					
Inspector:	HENDRICKSON, KAREN						Inspection Date:	03/01/93

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 281		AMMO QUALITY FACILITY							
Code	Location Use	Code	Material Touch	Amount	Extent	Assess	Potential	Notes	
RM-07	OPERATIONS/TEST ING	PI-01	F	9 LF	<10	G	M		
	OPERATIONS/TEST ING	FI-01	F	1 EA	<10	G	M		
	OPERATIONS/TEST ING	PI-02	F	17 LF	<10	G	M		
	OPERATIONS/TEST ING	FI-02	F	2 EA	<10	G	M		
	OPERATIONS/TEST ING	MM-01	NF	624 SF	<10	G	M		
RM-08	OPERATIONS/TEST ING	CB-01	NF	624 SF	<10	G	M		
	OPERATIONS/TEST ING	PI-01	F	25 LF	<10	G	M		
	OPERATIONS/TEST ING	FI-01	F	5 EA	<10	G	M		
	OPERATIONS/TEST ING	PI-02	F	16 LF	<10	G	M		
	OPERATIONS/TEST ING	FI-02	F	2 EA	<10	G	M		
RM-09	OPERATIONS/TEST ING	MM-01	NF	624 SF	<10	G	M		
	OPERATIONS/TEST ING	PI-01	F	230 LF	10	D	M		
	OPERATIONS/TEST ING	FI-01	F	54 EA	10	D	M		
	OPERATIONS/TEST ING	PI-02	F	7 LF	10	D	M		
	OPERATIONS/TEST ING	MM-02	NF	8 SF	<10	G	M	ASSUMED	
RM-10	OPERATIONS/TEST ING	PI-03	F	10 LF	10	D	M		
	WEST FIRING RANGE	MM-03	F	80 SF	<10	G	M	NOT ACM	
	FIRING ROOM	CB-01	NF	494 SF	<10	G	M		
	FIRING RANGE HALLWAY	MM-04	NF		<10	G	M	NOT ACM	
	FIRING RANGE EAST				NO SUSP				
RM-14	NORTH ENTRANCE	BI-01			<10	G	M	ASSUMED	
	NORTH ENTRANCE	MM-02	NF		<10	G	M	ASSUMED	
RM-15	OUTSIDE CUBICLE	CB-01	NF	294 SF	<10	G	M		
EXTERIOR	ROOF	RM-01	NF	12250 SF	<10	G	L		
	ROOF	CB-02	NF	1062 SF	<10	G	L		

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 03/01/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

Building Number: 281			AMMO QUALITY FACILITY						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
BI-01	BOILER INSULATION	INTERNAL BOILER INSULATION	1.00	I	T	N	ASSUMED		
CB-01	CEMENT BOARD	TRANSITE LIKE WALLBOARD	0.50	I	M	N	Y	4326 4327	RM-07 RM-07
CB-02		EXTERIOR CEMENT BOARDS TRANSITE LIKE	0.50	I	M	N	ASSUMED		
FI-01	FITTING INSULATION	FITTINGS ON AIR CELL	1.00	I	T	Y	Y	4317 4318	RM-09 RM-06
FI-02		FITTING INSULATION ON FELT WRAPPED LINES	1.00	I	T	Y	Y	4319	RM-08
MM-01	MISC. MATERIAL	BATTING FOR SOUND INSULATION	1.00	I	M	N	N	4328	RM-07
MM-02		INSULATION IN ELECTRICAL BOXES	0.50	I	M	N	ASSUMED		
MM-03		WALLBOARD FOR FIRING EXERCISES	0.50	I	M	N	N	4321	RM-10
MM-04		BARRIER PAPER	0.02	I	M	N	N	4320	RM-14
PI-01	PIPE INSULATION	AIR CELL TYPE	1.00	I	T	Y	Y	4316	RM-09
PI-02		FELT WRAP PAPER TYPE	1.00	I	T	Y	Y	4323 4324 4325	RM-07 RM-09 RM-09
PI-03		MAGNESIUM CARBONATE	1.00	I	T	Y	Y	4322	RM-09
RM-01	ROOFING MATERIALS	BUILT-UP ROOFING TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 03/01/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
281	4316	010	AMOS	LT	1	ZME
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	4317	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	4318	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	4319	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	4320	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4321	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4322	016	AMOS		40	
			ANPHO	LT	1	
			CHRY		20	
			CROCO	LT	1	
			TREACT	LT	1	
	4323	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4324	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4325	020	AMOS	LT	1	ZMA
			ANPHO	LT	1	
			CHRY		65	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
281	4326	021	AMOS	LT	1	ZMA
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	4327	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	4328	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 281

AMMO QUALITY FACILITY

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	BUILT-UP ROOFING TARS AND FELT	N	G	12250 SF	N/A	Operations & Maintenance
	CB-02	EXTERIOR CEMENT BOARDS TRANSIT	N	G	1062 SF	N/A	Operations & Maintenance
RM-01	CB-01	TRANSITE LIKE WALLBOARD	N	D	550 SF	19.00 SF	3135.00 Repairs Followed by O&M
	PI-01	AIR CELL TYPE	Y	D	15 LF	19.00 LF	85.50 Repairs Followed by O&M
	FI-01	FITTINGS ON AIR CELL	Y	G	2 EA	N/A	Operations & Maintenance
RM-02	CB-01	TRANSITE LIKE WALLBOARD	N	G	680 SF	N/A	Operations & Maintenance
	PI-01	AIR CELL TYPE	Y	G	17 LF	N/A	Operations & Maintenance
	FI-01	FITTINGS ON AIR CELL	Y	G	2 EA	N/A	Operations & Maintenance
RM-03	CB-01	TRANSITE LIKE WALLBOARD	N	G	680 SF	N/A	Operations & Maintenance
	PI-01	AIR CELL TYPE	Y	G	20 LF	N/A	Operations & Maintenance
	FI-01	FITTINGS ON AIR CELL	Y	G	4 EA	N/A	Operations & Maintenance
RM-04	CB-01	TRANSITE LIKE WALLBOARD	N	G	680 SF	N/A	Operations & Maintenance
	PI-01	AIR CELL TYPE	Y	G	20 LF	N/A	Operations & Maintenance
	FI-01	FITTINGS ON AIR CELL	Y	G	4 EA	N/A	Operations & Maintenance
RM-05	CB-01	TRANSITE LIKE WALLBOARD	N	G	580 SF	N/A	Operations & Maintenance
	PI-01	AIR CELL TYPE	Y	D	17 LF	19.00 LF	96.90 Repairs Followed by O&M
	FI-01	FITTINGS ON AIR CELL	Y	G	3 EA	N/A	Operations & Maintenance
	PI-02	FELT WRAP PAPER TYPE	Y	G	18 LF	N/A	Operations & Maintenance
	FI-02	FITTING INSULATION ON FELT WRA	Y	G	1 EA	N/A	Operations & Maintenance
RM-06	CB-01	TRANSITE LIKE WALLBOARD	N	G	624 SF	N/A	Operations & Maintenance
	PI-01	AIR CELL TYPE	Y	G	9 LF	N/A	Operations & Maintenance
	FI-01	FITTINGS ON AIR CELL	Y	G	1 EA	N/A	Operations & Maintenance
	PI-02	FELT WRAP PAPER TYPE	Y	G	18 LF	N/A	Operations & Maintenance
	FI-02	FITTING INSULATION ON FELT WRA	Y	G	2 LF	N/A	Operations & Maintenance
RM-07	CB-01	TRANSITE LIKE WALLBOARD	N	G	624 SF	N/A	Operations & Maintenance
	PI-01	AIR CELL TYPE	Y	G	9 LF	N/A	Operations & Maintenance
	FI-01	FITTINGS ON AIR CELL	Y	G	1 EA	N/A	Operations & Maintenance
	PI-02	FELT WRAP PAPER TYPE	Y	G	17 LF	N/A	Operations & Maintenance
	FI-02	FITTING INSULATION ON FELT WRA	Y	G	2 EA	N/A	Operations & Maintenance
RM-08	CB-01	TRANSITE LIKE WALLBOARD	N	G	624 SF	N/A	Operations & Maintenance
	PI-01	AIR CELL TYPE	Y	G	25 LF	N/A	Operations & Maintenance
	FI-01	FITTINGS ON AIR CELL	Y	G	5 EA	N/A	Operations & Maintenance
	PI-02	FELT WRAP PAPER TYPE	Y	G	16 LF	N/A	Operations & Maintenance
	FI-02	FITTING INSULATION ON FELT WRA	Y	G	2 EA	N/A	Operations & Maintenance
RM-09	PI-01	AIR CELL TYPE	Y	D	230 LF	19.00 LF	1311.00 Repairs Followed by O&M
	FI-01	FITTINGS ON AIR CELL	Y	D	54 EA	32.00 EA	518.40 Repairs Followed by O&M
	PI-02	FELT WRAP PAPER TYPE	Y	D	7 LF	19.00 LF	39.90 Repairs Followed by O&M
	MM-02	INSULATION IN ELECTRICAL BOXES	N	G	8 SF	N/A	Operations & Maintenance
	PI-03	MAGNESIUM CARBONATE	Y	D	10 LF	19.00 LF	57.00 Repairs Followed by O&M
RM-11	CB-01	TRANSITE LIKE WALLBOARD	N	G	494 SF	N/A	Operations & Maintenance
RM-14	BI-01	INTERNAL BOILER INSULATION	N	G		N/A	Operations & Maintenance
	MM-02	INSULATION IN ELECTRICAL BOXES	N	G		N/A	Operations & Maintenance
RM-15	CB-01	TRANSITE LIKE WALLBOARD	N	G	294 SF	N/A	Operations & Maintenance

## ACM Corrective Action Expense and Response Action Recommendations

Building: 281

AMMO QUALITY FACILITY

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	G	169 LF	\$ 0.00
PI	Pipe Insulation	D	279 LF	\$ 1590.30
FI	Fitting Insulation	G	29 EA	\$ 0.00
FI	Fitting Insulation	D	54 EA	\$ 518.40
RM	Roofing Materials	G	12250 SF	\$ 0.00
CB	Cementous Board	G	6342 SF	\$ 0.00
CB	Cementous Board	D	550 SF	\$ 3135.00
MM	Misc. Materials	G	8	\$ 0.00
				\$ 5243.70

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.

Grand Junction, Colorado 81506

Grand Junction, Colorado 81506

## CHAIN OF SAMPLE CUSTODY

Page 1 of 2  
Date 2-2-93

1. Project No. 53947.04 2. Project Name 586-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <sup>Bulb</sup> <del>Liters</del> Number	7. Remarks
4316	Bulk Asbestos	2-2-93	281	
4317				
4318				
4319				
4320				
4321				
4322				
4323				
4324				
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Paul Smith	2-2-93	Asbestos	Y. A. B. Co.	2/5/93
			Sample Control	



SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 2 of 2  
Date 2-2-93

CHAIN OF SAMPLE CUSTODY

1. Project No. J 3947.04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <sup>Building</sup> Number	7. Remarks
4325	Bulk Asbestos	2-2-93	281	
4326	↓	↓	↓	
4327	↓	↓	↓	
4328	↓	↓	↓	
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>Paul Smith</i>	2-2-93	Asbestos	<i>Paul Smith</i> DCL	2/5/93 Sample Control

# **BUILDING 282**

## **1.0 INTRODUCTION**

Building 282 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust on February 11, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete sides, wooden ceiling and metal roof.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> 7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 282			
		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
		J3947.04	DATE: 06-23-93	FILE: 3947AEI3.DGN	FIG.

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 282</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy:</b>	<b>Unoccupied</b>
Physical:	NONE	0	Material Friability:	NF 0
Water:	NONE	0	Occupant Accessibility to ACM:	NONE 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW 1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO 1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF 0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A 0
			Unoccupied Facility:	N/A OR < 1% 0
		<b>Total 0</b>		<b>Total 0</b>
<b>ACM Assessment Rating:</b>	<b>F , no ACM</b>			

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 282

AMMO QUALITY FACILITY

.....Location..... Code          Use	.....Material..... Code  Touch  Amount	Extent	Assess	Potential	Notes
INT/EXT	AMMO QUALITY FACILITY	<10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
      NF=Nonfriable

Amount: SF=Square Feet  
      LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
      D=Damaged  
      S=Significantly Damaged

Potential: For Damage  
      L=Low  
      M=Moderate  
      H=High

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 282

AMMO QUALITY FACILITY

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 283**

## **1.0 INTRODUCTION**

Building 283 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 283 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Recessed concrete construction with built-up asphalt-based roof.
- The building area is 136 square feet.
- The building is finished with a black mastic sealant.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a "pipe pit."

### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 6 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 27 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 2 square feet of black mastic material used as a sealant. This material was observed to be in good condition.

### 4.0 FUNCTIONAL SPACES

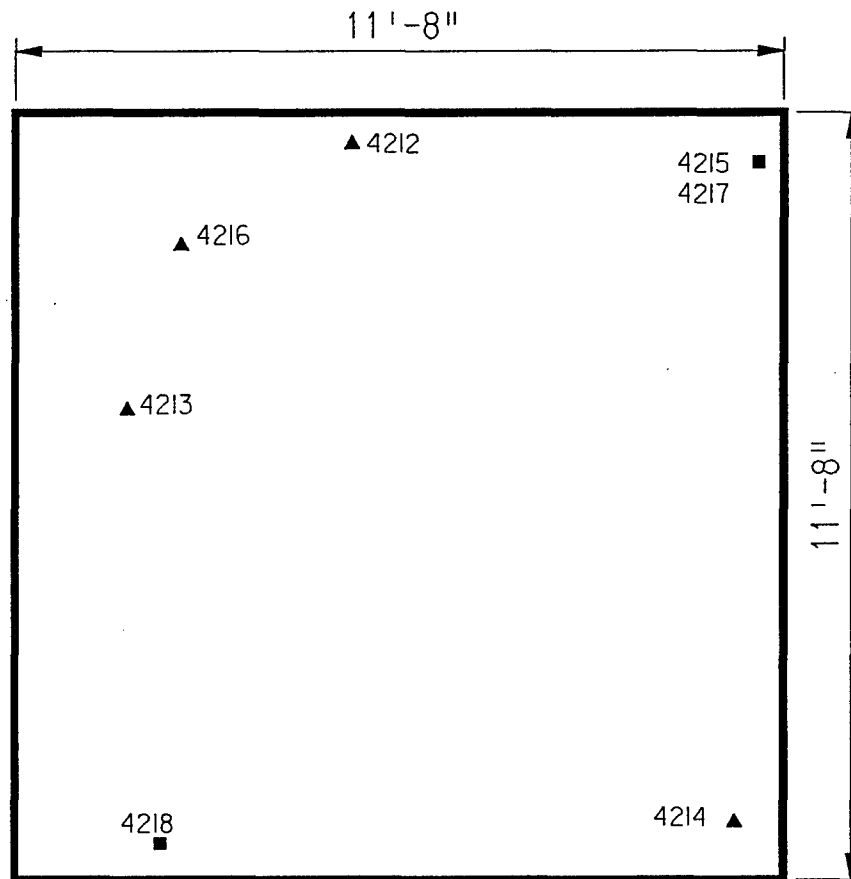
- #1 Entire Structure: **ACM Assessment Rating D**, the friable ACM is in good condition in an unoccupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of D calls for repair and initiation of a special O&M program. Damaged areas should be repaired, where "repair" means returning damaged ACM to an undamaged condition to contain fiber release.

### 5.0 ADDITIONAL COMMENTS

The general condition of ACM was good with exceptions noted above. ACM pipe insulations were friable, while the remaining ACMs were nonfriable.





LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 283 SAMPLE LOCATIONS			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)				
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AB87.DGN	FIG.

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 283</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number: 1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy: Unoccupied</b>
Physical:	LOW 2	Material Friability: LOW 1
Water:	NONE 0	Occupant Accessibility to ACM: LOW 0
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: LOW 1
Pipe, Boiler, or Duct insulation:	YES 3	Air Stream/Plenum: ACM OCCASIONAL 2
Type ACM:	TSI NOT 1	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	> 51% 3	Occupied Facility: N/A 0
		Unoccupied Facility: F GOOD 3
	<b>Total 9</b>	<b>Total 7</b>
<b>ACM Assessment Rating: D</b>		

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 283					HEAT DIST.CENTER				
.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	PIPE PIT	PI-01	F	6 LF	<10	G	M		
	PIPE PIT	FI-01	F	27 EA	<10	G	M		
	PIPE PIT	MM-01	NF	2 SF	<10	G	M	TAR USED AS A SEALANT	
EXTERIOR	PIPE PIT ROOF	RM-01	NF	140 SF	<10	G	L	BUILT UP ROOFING MATERIALS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 283	HEAT DIST.CENTER						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FI-01	FITTING INSULATION	ON PI-01 AND FIBERGLASS PIPE RUNS	1.00	I	T	Y	Y	4213	INTERIOR
								4214	INTERIOR
								4216	INTERIOR
MM-01	MASTIC	TAR LIKE SEALANT	0.25	I	M	N	Y	4215	INTERIOR
								4217	INTERIOR
PI-01	PIPE INSULATION	MAGNESIUM CARBONATE (MAG)	1.00	I	T	Y	Y	4212	INTERIOR
RM-01	ROOFING MATERIALS	TAR, AND FELTS	0.50	I	M	N	N	4218	EXTERIOR

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
283	4212	008	AMOS	LT	1	ZLH
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	4213	009	AMOS		60	
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	4214	010	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	4215	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		14	
			CROCO	LT	1	
			TREACT	LT	1	
	4216	012	AMOS		40	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	4217	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		13	
			CROCO	LT	1	
			TREACT	LT	1	
	4218	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 283				HEAT DIST.CENTER				
Location .....		Material.....			Cost Per	Expense	Response Action	
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
INTERIOR	PI-01	MAGNESIUM CARBONATE (MAG)	Y	G	6 LF	N/A	N/A	Operations & Maintenance
	FI-01	ON PI-01 AND FIBERGLASS PIPE R	Y	G	27 EA	N/A	N/A	Operations & Maintenance
	MM-01	TAR LIKE SEALANT	N	G	2 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
PI	Pipe Insulation	G	6 LF	\$	0.00
FI	Fitting Insulation	G	27 EA	\$	0.00
MM	Misc. Materials	G	2 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1-30-93

1. Project No. J 3947.04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volumes In Liters Number	7. Remarks
4212	Bulk Asbestos	1-30-93	283	
4213				
4214				
4215				
4216				
4217				
4218				
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Paul R. Smith	1-30-93	Asbestos	Shawn Dean/DCL	2-2-93
				Sample Rec.

# **BUILDING 284**

## **1.0 INTRODUCTION**

Building 284 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story completely concrete construction at grade containing 402 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- Less than 2 square feet of cement board ("Transite) electric panel transformer insulators. These insulators were inaccessible for inspection, but were assumed to be in satisfactory condition.



#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was inaccessible for inspection. This ACM is typically nonfriable and not considered to be a significant environmental concern.

BUILDING OUTLINE NOT AVAILABLE

ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 284			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)				
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
⑫	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AB88.DGN	FIG.

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 284</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy:</b>	<b>Unoccupied</b>
Physical:	NONE	0	Material Friability:	NF 0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE 0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	NONE 0
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF 0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A 0
			Unoccupied Facility:	NF GOOD 1
	<b>Total</b>	<b>0</b>	<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating:</b>	<b>F</b>			

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INT/EXT	SAFE HOUSE	MM-01	NF	2 SF	<10	G	L	INTERIOR OF ELECTRICAL PANELS MAY CONTAIN SOME ACM. NO OTHER SUSPECT ACM MATERIALS OBSERVED	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 284      SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	SAFE HOUSE	ELECTRIC PANELS INTERIOR	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

## ACM Corrective Action Expense and Response Action Recommendations

Building: 284

SAFE HOUSE

Location	Material	Cost Per	Expense	Response Action
Code	Code Description	Unit	Estimate	Recommendation
INT/EXT	MM-01 ELECTRIC PANELS INTERIOR	N G 2 SF	N/A N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
MM	Misc. Materials	G	2 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 285**

## **1.0 INTRODUCTION**

Building 285 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade with metal deck and built-up asphalt-based roof.
- The building area is 1,737 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as an ammunition storage facility. The building was considered unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 1,740 square feet of roofing tars and felts. These tars and felts were observed to be in fair condition with evidence of physical damage or material deterioration.

#### 4.0 FUNCTIONAL SPACES

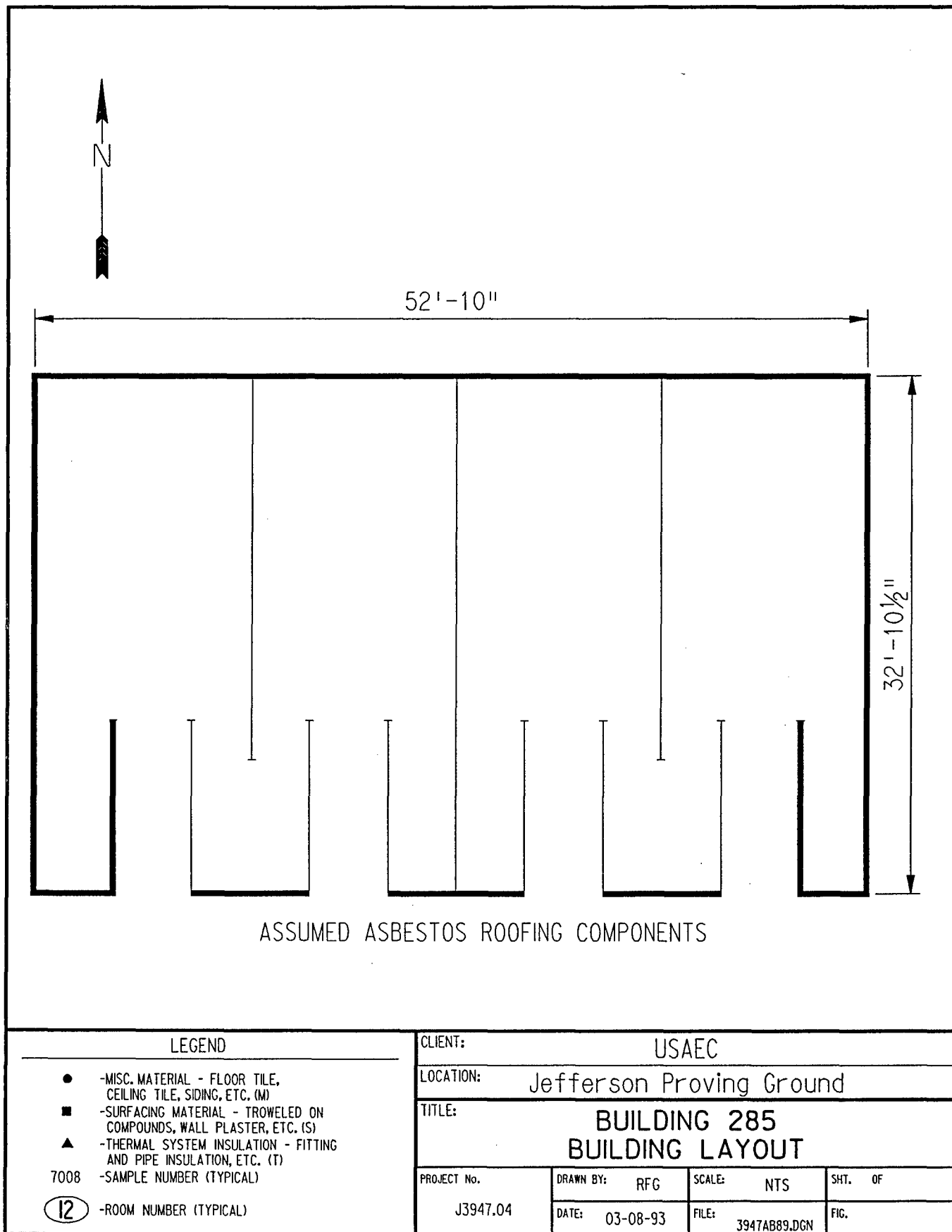
- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### 5.0 ADDITIONAL COMMENTS

ACM was observed to be in fair condition and nonfriable. This material is not considered to be a significant environmental concern.





# *ACM Assessment Rating Summary*

Damage Assessment		Building Number: 285		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied
Physical:	MINIMAL	1	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	NONE	0
Type ACM:	NF, POOR	2	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF DAMAGED	2
		<hr/>			<hr/>
		Total	0	Total	0
ACM Assessment Rating: F					

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 285				AMMO QUALITY FACILITY					
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
EXTERIOR	ROOF	RM-01	NF	1740 SF	<10	D	M	BUILT UP ROOFING MATERIALS	
INTERIOR	AMMO QUAL FAC	-			<10			NO SUSPECT ACM MATERIALS	

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 285

AMMO QUALITY FACILITY

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 285

AMMO QUALITY FACILITY

Location .....	Material.....	Cost Per Expense	Response Action
Code Code Description	Friable Condition Amount Unit	Estimate	Recommendation
EXTERIOR RM-01 TARS, AND FELTS	N D 1740 SF 5.00 SF 2610.00		Repairs Followed by O&M

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	D	1740 SF	\$ 2610.00
				\$ 2610.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 286**

## **1.0 INTRODUCTION**

Building 286 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 11, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>(12) -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 286			
		PROJECT No.	DRAWN BY:	SCALE:	SHT. OF
J3947.04	RFG	NTS			
		DATE:	FILE:	FIG.	
		03-08-93	3947AB90.DGN		

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 286		Exposure Assessment	
Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied			
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1%	0	
		Total	0			
ACM Assessment Rating: F , no ACM				Total	0	



# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 286		SAFE HOUSE						
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 286

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/11/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 286

SAFE HOUSE

Location	Material	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 287**

## **1.0 INTRODUCTION**

Building 287 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 112 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 150 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

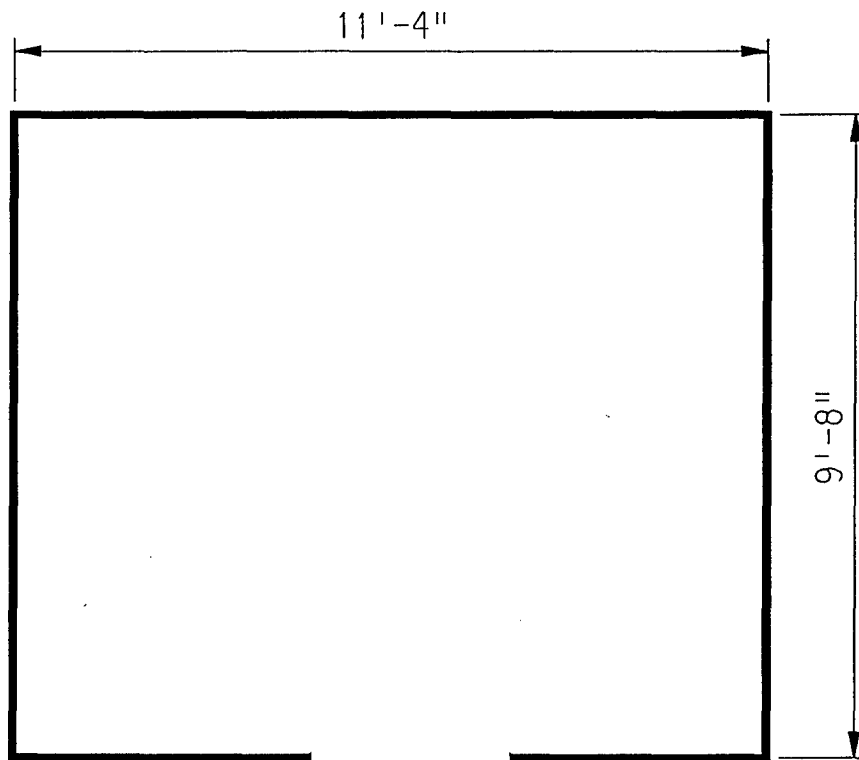
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

<p align="center"><b>LEGEND</b></p> <ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>(12) -ROOM NUMBER (TYPICAL)</p>		<p>CLIENT: USAEC</p>			
		<p>LOCATION: Jefferson Proving Ground</p>			
		<p>TITLE: <b>BUILDING 287 BUILDING LAYOUT</b></p>			
PROJECT No.		DRAWN BY:	SCALE:	SHT. OF	
J3947.04		RFG	NTS		
		DATE:	FILE:	FIG.	
		03-08-93	3947AB91.DGN		

# ACM Assessment Rating Summary

Damage Assessment			Exposure Assessment		
Building Number: 287					
Functional Space Number: 1	ENTIRE BUILDING		Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		Total			Total
		0			0
ACM Assessment Rating: F					

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 287				TRANSFORMER HOUSE					
.....Location.....		.....Material.....				Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount					
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	<2	SF	<10	G	L	POSSIBLE TRANSITE TRANSFORMER INSULATORS INSIDE ELECTRICAL BOXES
EXTERIOR	ROOF	RM-01	NF	150	SF	<10	G	L	SHINGLES, FELTS AND TARS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 287

TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-03	ELECTRICAL PANELS	TRANSITE TRANSFORMER INSULATORS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 287

TRANSFORMER HOUSE

Location	Material	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate	Recommendation
EXTERIOR	RM-01 SHINGLES, FELTS, AND TARS	N G 150 SF	N/A	Operations & Maintenance
	RM-01 SHINGLES	N G 150 SF	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	300 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 287A**

## **1.0 INTRODUCTION**

Building 287A was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 112 square feet of space.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 150 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

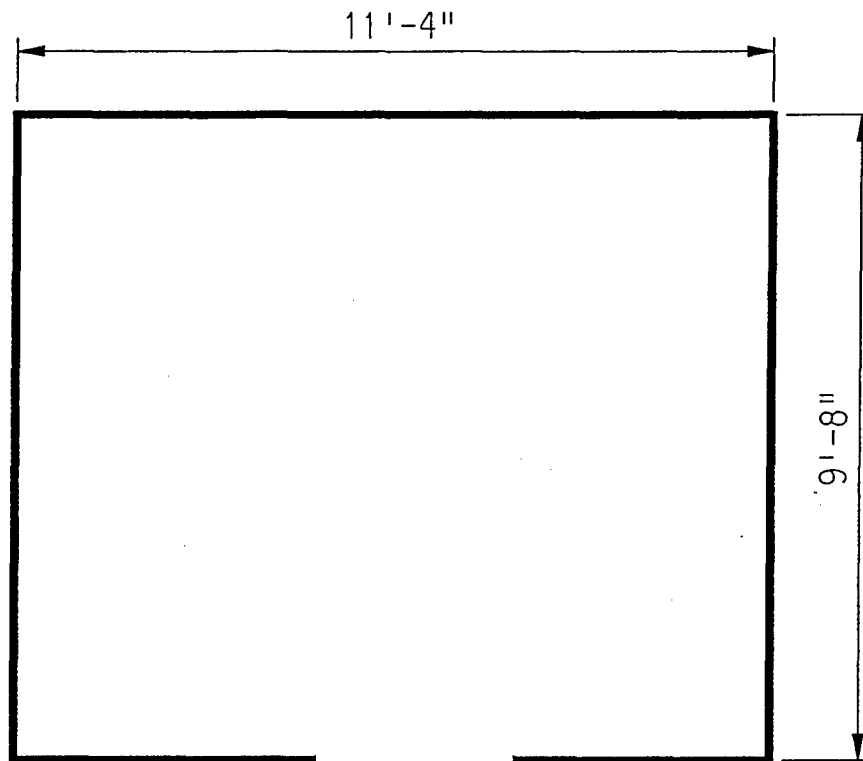
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: ACM Assessment Rating F, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 287A BUILDING LAYOUT			
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AD96.DGN	FIG.

### ACM Assessment Rating Summary

Damage Assessment		Building Number: 287A		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy: Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	NONE	0
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<u>Total</u>	<u>0</u>	<u>Total</u>	<u>0</u>
ACM Assessment Rating: F					

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....						
Code            Use		Code    Touch    Amount		Extent	Assess	Potential	Notes	
INTERIOR    TRANSFORMER		MM-01	NF			<10		
EXTERIOR    TRANSFORMER		RM-01	NF	150    SF	<10	G	L	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector:    HENDRICKSON, KAREN

Inspection Date:    02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 287A TRANSFORMER

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-04	ELECTRIC INSULATION	ELECTRIC PANEL INSULATORS	0.25	I	M	N	ASSUMED		
RM-01	ROOFING	SHINGLES	0.25	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93



## ACM Corrective Action Expense and Response Action Recommendations

Building: 287A

TRANSFORMER

Location Code	Code	Description	Material..... Friable	Condition	Amount	Cost Per Unit	Expense Estimate	Response Action Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	150 SF	N/A	N/A	Operations & Maintenance
	RM-01	SHINGLES	N	G	150 SF	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense	Est.
RM	Roofing Materials	G	300 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 288**

## **1.0 INTRODUCTION**

Building 288 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 288 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Two-story concrete construction with built-up asphalt-based roof.
- The building area is 440 square feet.
- The building is finished with acoustical ceiling panels/tiles.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house and was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 140 square feet of 12" x 12" white, metal-clad ceiling tiles. These tiles were observed to be in good condition.

- 440 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

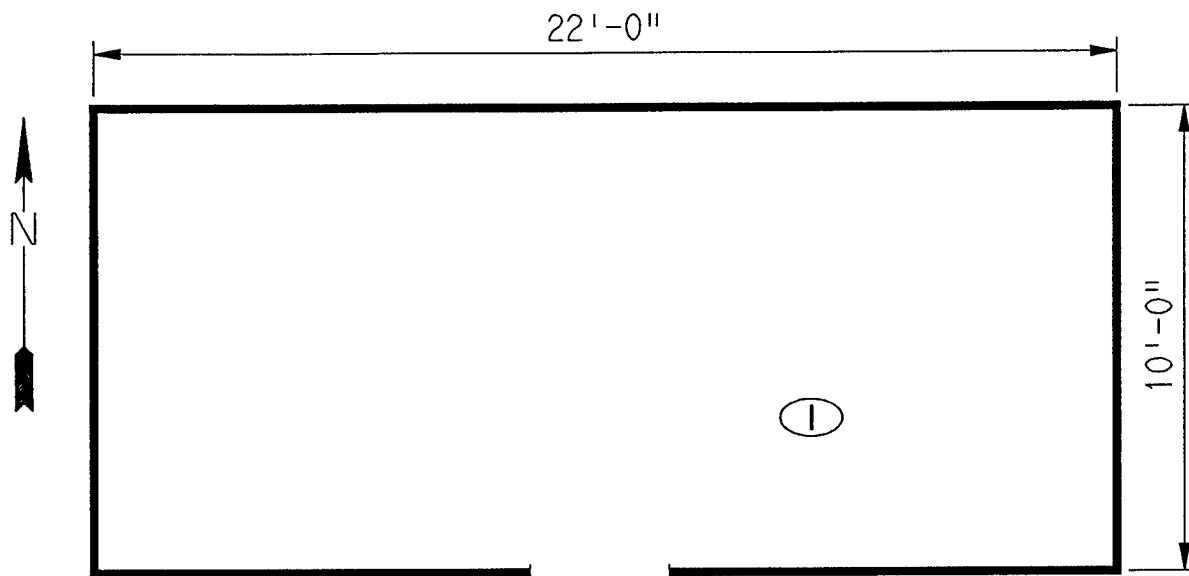
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, the damaged ACM is nonfriable and the building is not occupied full time.

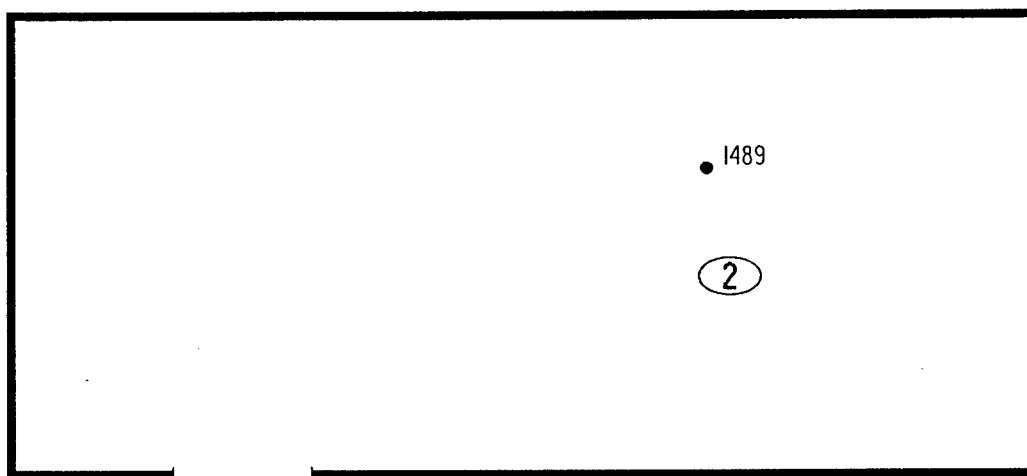
The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

The condition of ACM was observed to be good and non-friable. These materials are not considered to be a significant environmental concern.



FIRST FLOOR



SECOND FLOOR

ASSUMED ASBESTOS ROOFING COMPONENTS

<p>LEGEND</p> <ul style="list-style-type: none"> <li>■ -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> <li>-SAMPLE NUMBER (TYPICAL)</li> </ul>		CLIENT: USAEC	
		LOCATION: Jefferson Proving Ground	
		TITLE: BUILDING 288 SAMPLE LOCATIONS	
<p>⑫ -ROOM NUMBER (TYPICAL)</p>	PROJECT No.	DRAWN BY: RFG	SCALE: NTS
	J3947.04	DATE: 03-08-93	FILE: 3947AB92.DGN
		SHT. OF	FIG.

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 288</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy:</b>	<b>Unoccupied</b>
Physical:	MINIMAL	1	Material Friability:	NF 0
Water:	NONE	0	Occupant Accessibility to ACM:	MODERATE 1
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW 1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	MISC. ACM	1	Area of surface or damaged ACM:	< 10 LF 0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A 0
			Unoccupied Facility:	NF GOOD 1
		<b>Total 0</b>		<b>Total 0</b>
<b>ACM Assessment Rating:</b>	<b>F</b>			

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 288				SAFE SHELTER					
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
RM-01	BREAK ROOM				<10			NO SUSPECT ACM MATERIALS	
RM-02	OBSERVATION ROOM/2ND FLOOR	CT-01	NF	140 SF	<10	G	L		
EXTERIOR	ROOF	RM-01	NF	440 SF	<10	G	L	TAR, AND FELT	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/10/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 288	SAFE SHELTER						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CT-01	CEILING TILE	1' X 1' WHITE W/METAL FACING	0.50	I	M	N	Y	1489	RM-02
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Friable: Y=Friable  
N=Nonfriable

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: BRYAN, TERI

Inspection Date: 02/10/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
288	1489	001	AMOS	LT	1	ACW
			ANPHO	LT	1	
			CHRY		1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



ACM Corrective Action Expense and Response Action Recommendations

Building: 288

SAFE SHELTER

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit Estimate	Recommendation
EXTERIOR RM-01	TARS, AND FELTS	N G	440 SF	N/A N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	440 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1

Date 2-10-93

1. Project No. J3947.04 2. Project Name JPC

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In <del>Expos</del> <sup>Bldg</sup>	7. Remarks
1489	Bulk Asbest	2-10-93	288	SAMPLE: T. BRYAN
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
T. Bryan	2-10-92	Amherst	Maia Dean DCL	2-15-93
				Amherst Rec

# **BUILDING 289**

## **1.0 INTRODUCTION**

Building 289 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Two-story concrete construction with a built-up asphalt-based roof.
- The building area is 440 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house and was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 200 square feet of roofing tars and felts. These tars and felts were observed to be in good condition.

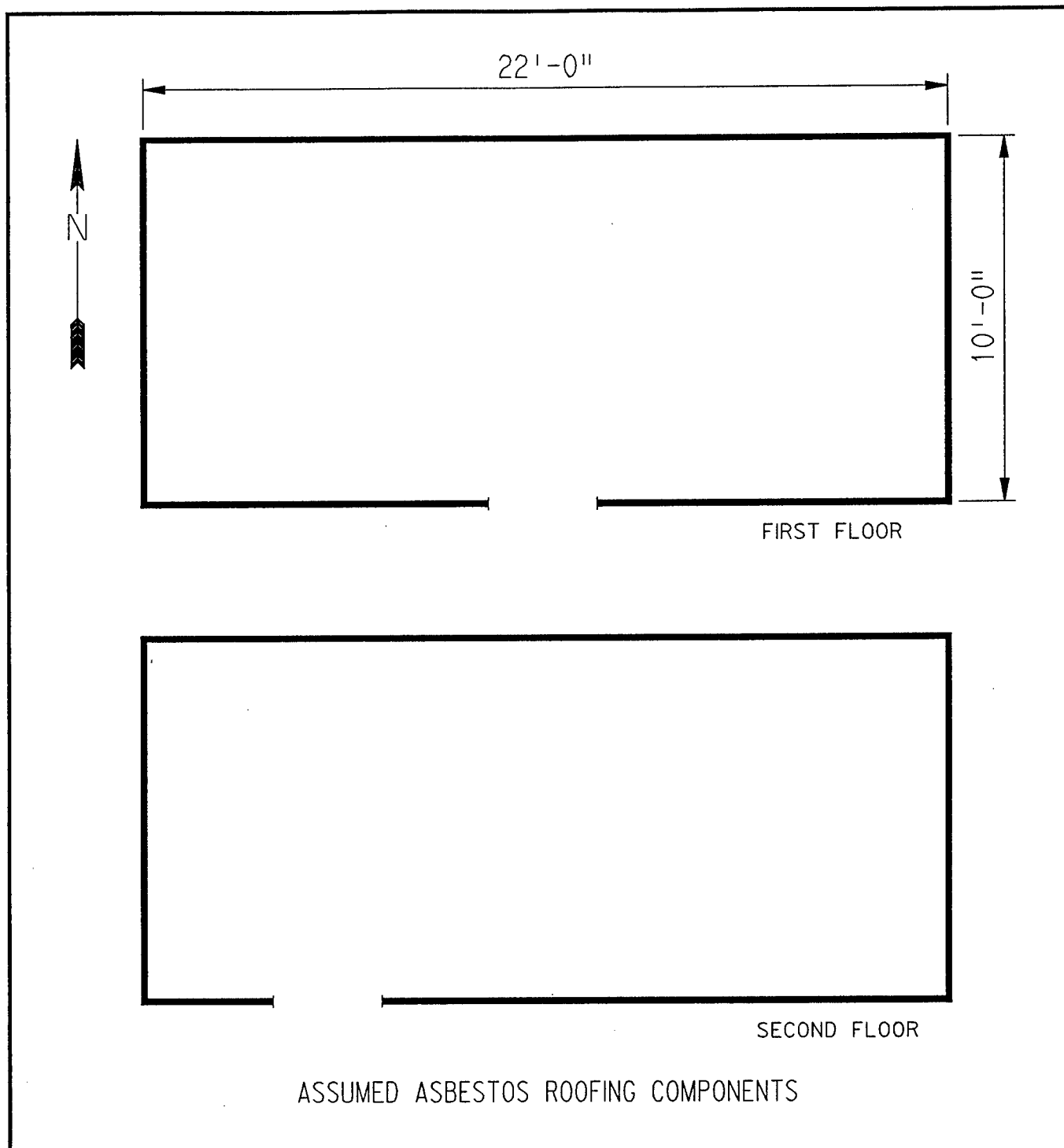
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was observed to be nonfriable and in good condition. This ACM is not considered to be a significant environmental concern.



LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 289 BUILDING LAYOUT			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No. J3947.04	DRAWN BY: RFG	SCALE: NTS	SHT. OF
			DATE: 03-08-93	FILE: 3947AB93.DGN	FIG.

# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 289		Exposure Assessment
----------------------	----------------------	--	------------------------

Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<hr/> <hr/>		<hr/> <hr/>	
		Total	0	Total	0
ACM Assessment Rating: F					

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS	
EXTERIOR	ROOF	RM-01	NF	200 SF	<10	G	M	TARS, AND FELTS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 289

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: BRYAN, TERI

Inspection Date: 02/09/93



ACM Corrective Action Expense and Response Action Recommendations

Building: 289

SAFE HOUSE

Location .....	Material.....	Cost Per	Expense	Response Action
Code    Code    Description	Friable Condition Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01 TARS AND FELTS	N            G            200 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	200 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## **BUILDING 290**

### **1.0 INTRODUCTION**

Building 290 was inspected for ACM by Syd Pincock (Indiana Inspector License No. 197723123) of Rust E&I January 29, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- Concrete construction.

#### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> 7008 -SAMPLE NUMBER (TYPICAL) <b>(12)</b> -ROOM NUMBER (TYPICAL)		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 290			
		PROJECT No. J3947.04	DRAWN BY: RFG	SCALE: NTS	SHT. OF
		DATE: 03-08-93	FILE: 3947AB94.DGN	FIG.	

# *ACM Assessment Rating Summary*

Damage Assessment			Building Number: 290		Exposure Assessment	
Functional Space Number: 1			AMMO STORAGE IGLOO		Occupancy: Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1%	0	
		Total	0			
ACM Assessment Rating: F , no ACM			Total 0			

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 290

IGLOO STORAGE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	IGLOO STORAGE				<10			NO SUSPECT ACM MATERIALS

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 290

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 290

IGLOO STORAGE

Location	Material	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 291**

## **1.0 INTRODUCTION**

Building 291 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 27, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 291 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction on a concrete slab at grade; the building area is 5,270 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the central boiler plant.
- The building interior is finished with vinyl floor tiles.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with a built-up asphalt-based roofing tars and felts.

### **2.2 Building Use**

At the time of inspection, the building was being used as a storage facility and was unoccupied.



### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 100 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally fair condition with evidence of minor isolated physical damage or material deterioration.
- 15 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 885 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration in Rooms 4, 6, and 9.
- 138 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 15 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 40 square feet of 2' x 2' black vinyl floor tiles. These tiles were observed to be in good condition.
- 998 square feet of 9" x 9" brown speckled vinyl floor tiles. These tiles were observed to be in good condition.
- 900 square feet of 9" x 9" brown vinyl floor tiles. These tiles were observed to be in good condition.
- 5,200 square feet of roofing tars and felts. These tars and felts were observed to be in good condition.

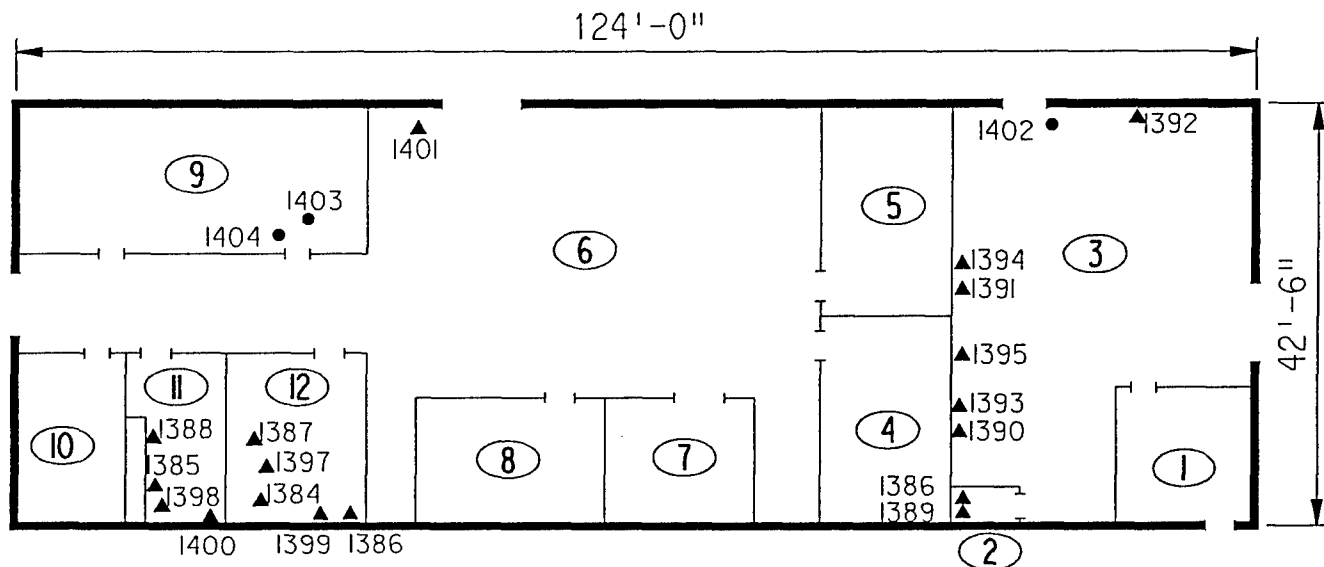
### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating C**, there is damaged friable ACM in an unoccupied building.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

## 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be good with the noted exceptions above. Pipe insulations were observed to be friable, while other ACMs were nonfriable. The felt wrap insulation (PI-01) was sampled in three places, and all three samples showed no asbestos fibers. Thus, the felt wrap is not considered ACM in this building; however, most of the felt wrap insulation sampled at JPG was ACM, and felt wrap pipe insulation in Building 291 should be sampled prior to any removal or renovation. Other TSI in Building 291 shows signs of deterioration and should also be repaired or removed if the building usage changes.



#### LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- (12) -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

### BUILDING 29I SAMPLE LOCATIONS

PROJECT No.

J3947.04

DRAWN BY:

RFG

SCALE:

NTS

SHT. OF

DATE:

03-08-93

FILE:

3947AB95.DGN

FIG.

# ACM Assessment Rating Summary

Damage Assessment			Building Number: 291		Exposure Assessment	
Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied			
Physical:	MODERATE	3	Material Friability:	MODERATE	2	
Water:	MINOR	1	Occupant Accessibility to ACM:	LOW	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL	2	
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	10-100 LF	1	
Percent Asbestos:	> 51 %	3	Occupied Facility:	N/A	0	
			Unoccupied Facility:	F DAMAGED	5	
		<b>Total</b>			<b>Total</b>	
ACM Assessment Rating: C		12			11	

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 291

ORD ADMINISTRATION BLDG

Location.....	Material.....								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	EMPTY	PI-03	F	50 LF	<10	G	M		
	EMPTY	FI-03	F	10 EA	<10	G	M		
	EMPTY	FT-01	NF	100 SF	<10	G	M		
RM-02	RESTROOM	FT-01	NF	28 SF	<10	G	M		
	RESTROOM	PI-01	NF	20 LF	<10	G	M	OPEN ENDS	
	RESTROOM	FI-01	F	5 EA	<10	G	M		
	RESTROOM	PI-03	F	10 LF	<10	G	M	OPEN ENDS	
	RESTROOM	FI-03	F	3 EA	<10	G	M		
RM-03	STORAGE	PI-02	F	100 LF	<10	G	M		
	STORAGE	FI-02	F	15 EA	<10	G	M		
	STORAGE	PI-03	F	40 LF	<10	G	M		
	STORAGE	FI-03	F	5 EA	<10	G	M		
	STORAGE	FT-01	NF	870 SF	<10	G	M		
RM-04	EMPTY	PI-03	F	50 LF	10	D	M	OPEN ENDS	
	EMPTY	FI-03	F	5 EA	<10	G	M		
	EMPTY	FT-02	NF	260 SF	<10	G	M		
RM-05	EMPTY	FT-02	NF	260 SF	<10	G	M		
	EMPTY	PI-03	F	50 LF	<10	G	M	OPEN ENDS	
	EMPTY	FI-03	F	5 EA	<10	G	M		
RM-06	STORAGE	FI-03	F	75 EA	<10	G	M		
	STORAGE	PI-03	F	375 LF	10	D	M	OPEN ENDS	
RM-07	EQUIPMENT	-			<10			NO SUSPECT ACM MATERIALS	
RM-08	EQUIPMENT	-			<10			NO SUSPECT ACM MATERIALS	
RM-09	STORAGE	PI-03	F	100 LF	10	D	M	OPEN ENDS	
	STORAGE	FI-03	F	20 EA	<10	G	M		
	STORAGE	FT-02	NF	380 SF	<10	G	M		
	STORAGE	FT-03	NF	40 SF	<10	G	M		
RM-10	EMPTY	PI-03	F	60 LF	<10	G	M	UNACCESSABLE ESTIMATE	
	EMPTY	FI-03	F	5 EA	<10	G	M	UNACCESSABLE ESTIMATE	
RM-11	RESTROOM	FI-03	F	5 EA	<10	G	M		
	RESTROOM	PI-03	F	90 LF	<10	G	M	OPEN ENDS	
	RESTROOM	PI-01	NF	40 LF	10	D	M	OPEN ENDS	
	RESTROOM	FI-01	F	5 EA	<10	G	M		
RM-12	RESTROOM	PI-01	NF	70 LF	<10	G	M	OPEN ENDS	
	RESTROOM	FI-01	F	5 EA	<10	G	M		
	RESTROOM	PI-03	F	60 LF	<10	G	M	OPEN ENDS	
	RESTROOM	FI-03	F	5 EA	<10	G	M		
EXTERIOR	ROOF	RM-01	NF	5200 SF	<10	G	L		

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 01/27/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

Building Number: 291		ORD ADMINISTRATION BLDG							
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FI-01	FITTING INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1387 1388 1389	RM-12 RM-11 RM-02
FI-02			1.00	I	T	Y	Y	1393 1394 1395	RM-03 RM-03 RM-03
FI-03			1.00	I	T	Y	Y	1399 1400 1401	RM-12 RM-11 RM-06
FT-01	FLOOR TILE	9" X 9" BROWN SPECKLED	0.25	I	M	N	Y	1402	RM-03
FT-02		9" X 9" BROWN	0.25	I	M	N	Y	1403	RM-09
FT-03		2'X 2' BLACK	0.25	I	M	N	Y	1404	RM-09
PI-01	PIPE INSULATION	FELT WRAP	1.00	I	T	Y	N	1384 1385 1386	RM-12 RM-11 RM-02
PI-02		WHITE CHALKY	1.00	I	T	Y	Y	1390 1391 1392	RM-03 RM-03 RM-03
PI-03		AIRCELL	1.00	I	T	Y	Y	1396 1397 1398	RM-12 RM-12 RM-11
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.25	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 01/27/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
291	1384	027	AMOS	LT	1	ZKQ
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1385	028	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1386	029	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1387	030	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1388	031	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1389	032	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1390	033	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1391	034	AMOS		35	
			ANPHO	LT	1	
			CHRY		35	
			CROCO	LT	1	
			TREACT	LT	1	
	1392	035	TREACT	LT	1	
			AMOS		35	
			ANPHO	LT	1	
			CHRY		35	
			CROCO	LT	1	
	1393	001	AMOS	LT	1	ZKR
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
291	1394	002	AMOS	LT	1	ZKR
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1395	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1396	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1397	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	1398	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	1399	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1400	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	1401	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	1402	014	AMOS	LT	1	ZKW
			ANPHO	LT	1	
			CHRY		33	
			CROCO	LT	1	
			TREACT	LT	1	
	1403	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		44	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
291	1403	015	TREACT	LT	1	ZKW
	1404	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		43	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 291

ORD ADMINISTRATION BLDG

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 TARS, AND FELTS	N	G	5200 SF	N/A	N/A	Operations & Maintenance
RM-01	PI-03 AIRCELL	Y	G	50 LF	N/A	N/A	Operations & Maintenance
	FI-03 WHITE CHALKY	Y	G	10 EA	N/A	N/A	Operations & Maintenance
	FT-01 9" X 9" BROWN SPECKLED	N	G	100 SF	N/A	N/A	Operations & Maintenance
RM-02	FT-01 9" X 9" BROWN SPECKLED	N	G	28 SF	N/A	N/A	Operations & Maintenance
	FI-01 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
	PI-03 AIRCELL	Y	G	10 LF	N/A	N/A	Operations & Maintenance
	FI-03 WHITE CHALKY	Y	G	3 EA	N/A	N/A	Operations & Maintenance
RM-03	PI-02 WHITE CHALKY	Y	G	100 LF	N/A	N/A	Operations & Maintenance
	FI-02 WHITE CHALKY	Y	G	15 EA	N/A	N/A	Operations & Maintenance
	PI-03 AIRCELL	Y	G	40 LF	N/A	N/A	Operations & Maintenance
	FI-03 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
	FT-01 9" X 9" BROWN SPECKLED	N	G	870 SF	N/A	N/A	Operations & Maintenance
RM-04	PI-03 AIRCELL	Y	D	50 LF	19.00 LF	285.00	Repairs Followed by O&M
	FI-03 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
	FT-02 9" X 9" BROWN	N	G	260 SF	N/A	N/A	Operations & Maintenance
RM-05	FT-02 9" X 9" BROWN	N	G	260 SF	N/A	N/A	Operations & Maintenance
	PI-03 AIRCELL	Y	G	50 LF	N/A	N/A	Operations & Maintenance
	FI-03 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
RM-06	FI-03 WHITE CHALKY	Y	G	75 EA	N/A	N/A	Operations & Maintenance
	PI-03 AIRCELL	Y	D	375 LF	19.00 LF	2137.50	Repairs Followed by O&M
RM-09	PI-03 AIRCELL	Y	D	100 LF	19.00 LF	570.00	Repairs Followed by O&M
	FI-03 WHITE CHALKY	Y	G	20 EA	N/A	N/A	Operations & Maintenance
	FT-02 9" X 9" BROWN	N	G	380 SF	N/A	N/A	Operations & Maintenance
	FT-03 2'X 2' BLACK	N	G	40 SF	N/A	N/A	Operations & Maintenance
RM-10	PI-03 AIRCELL	Y	G	60 LF	N/A	N/A	Operations & Maintenance
	FI-03 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
RM-11	FI-03 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
	PI-03 AIRCELL	Y	G	90 LF	N/A	N/A	Operations & Maintenance
	FI-01 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
RM-12	FI-01 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance
	PI-03 AIRCELL	Y	G	60 LF	N/A	N/A	Operations & Maintenance
	FI-03 WHITE CHALKY	Y	G	5 EA	N/A	N/A	Operations & Maintenance

ACM Corrective Action Expense and Response Action Recommendations

Building: 291

ORD ADMINISTRATION BLDG

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	G	1938 SF	\$ 0.00
PI	Pipe Insulation	G	460 LF	\$ 0.00
PI	Pipe Insulation	D	525 LF	\$ 2992.50
FI	Fitting Insulation	G	168 EA	\$ 0.00
RM	Roofing Materials	G	5200 SF	\$ 0.00
				\$ 2992.50

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

**SEC Donohue, Inc.**

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612.

## CHAIN OF SAMPLE CUSTODY

Page 1 of

Date 1-27-93

1. Project No. J3947.04

## 2. Project Name JPG TASK ORDER 4

## 2. Project Name Jpg Task Order 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <del>Vol.</del>	7. Remarks
1384	Bulk Asbestos	1-27-93	291	Sample Initial
1385				B
1386				B
1387				B
1388				B
1389				B
1390				B
1391				B
1392				B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	1-27-93	Asbestos	<i>[Signature]</i> BSA	2/1/93
			Sample Contained	

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 2 of         
Date 1-27-93

1. Project No. 13947.04

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters BODG No	7. Remarks
1393	Bulk Asbestos	1-27-93	291	B
1394				B
1395				B
1396				B
1397				B
1398				B
1399				B
1400				B
1401				B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	1-27-93	Asbestos	<i>[Signature]</i>	2/1/93
				Sample Cont.

SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

## Page 3 of 3

Date 1-27-93

1. Project No. J3947.04

[illegible]

## **BUILDING 292**

### **1.0 INTRODUCTION**

Building 292 was inspected for ACM by Syd Pincock (Indiana Inspector License No. 197723123) of Rust E&I on January 29, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- Concrete construction

#### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> 7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 292			
		PROJECT No. J3947.04	DRAWN BY: RFG	SCALE: NTS	SHT. OF
		DATE: 03-08-93	FILE: 3947AB96.DGN	FIG.	



# ACM Assessment Rating Summary

Damage Assessment	Building Number: 292	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1			AMMO STORAGE IGLOO			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0			
Water:	NONE	0	Occupant Accessibility to ACM:	NONE	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1			
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1			
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0			
			Unoccupied Facility:	N/A OR < 1%	0			
		Total	0				Total	0
ACM Assessment Rating: F , no ACM								

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 292

IGLOO STORAGE

.....Location..... Code                  Use	.....Material..... Code  Touch  Amount	Extent	Assess	Potential	Notes
INT/EXT	IGLOO STORAGE	<10			NO SUSPECT ACM MATERIALS
	IGLOO STORAGE	<10			

Touch: F =Friable  
      NF=Nonfriable

Amount: SF=Square Feet  
         LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
         D=Damaged  
         S=Significantly Damaged

Potential: For Damage  
          L=Low  
          M=Moderate  
          H=High

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 292

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/29/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 292

IGLOO STORAGE

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 293**

## **1.0 INTRODUCTION**

Building 293 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 28, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 293 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction on a concrete slab at grade, containing 4,108 square feet.
- The building is heated by forced air ventilation via insulated fan and duct systems, which receive heat from radiant steam via an insulated pipe supply and return system originating from the building's boiler.
- The building interior is finished with metal panels, cement board ("Transite") floor panels, and vinyl floor tiles.
- The walls are insulated with a "brown, fibrous" material.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with a built-up asphalt-based roofing tars and felts.

## 2.2 Building Use

At the time of inspection, the building was being used as a storage facility and was unoccupied.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 1,400 square feet of corrugated cardboard duct insulation ("aircell"). This insulation was observed to be in poor condition with evidence of widespread significant physical damage or material deterioration.
- 30 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in fair to poor condition with evidence of general to significant physical damage or material deterioration.
- 357 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in fair to poor condition with evidence of general to significant physical damage or material deterioration.
- 180 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery, corrugated cardboard, or felt-wrap material. This insulation was observed to be in fair to poor condition with evidence of general to significant physical damage or material deterioration.
- 25 square feet of cement board ("Transite") floor panels. These panels were observed to be in poor condition with evidence of significant physical damage or material deterioration.
- 4,200 square feet of roofing tars and felts. These tars and felts were observed to be in good condition.

## 4.0 FUNCTIONAL SPACES

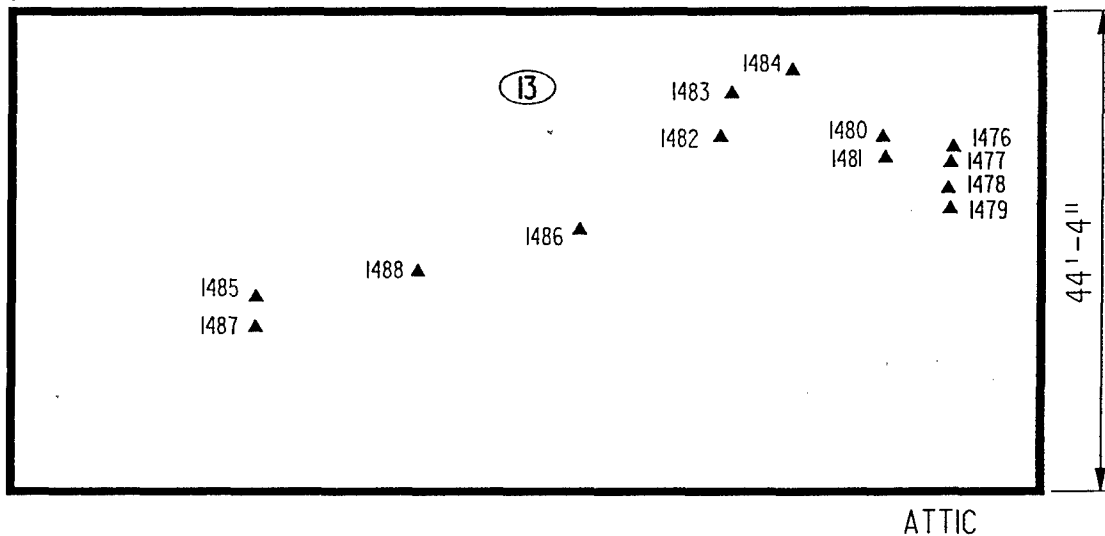
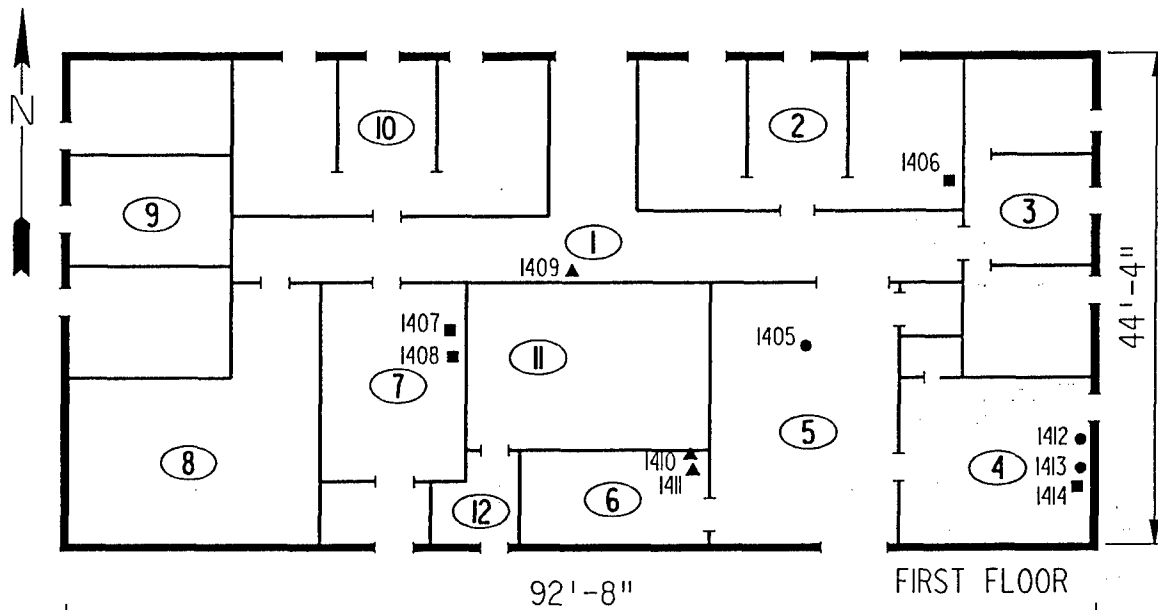
- #1 Rooms 1 through 10 and 12: **ACM Assessment Rating C**, there is widespread damage to friable ACM in an infrequently visited area.
- #2 Rooms 11 and 13 (Boiler and Attic): **ACM Assessment Rating C**, there is widespread damage to friable ACM in an infrequently visited area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

## 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be poor. ACM pipe and duct insulations were observed to be extremely friable and would need to be removed prior to any full-time utilization (including storage). In nearly every room, the pipes run to overhead heaters with attached fan units. If these units were to be restarted, there could potentially be large amounts of contamination blown throughout the building. At the time of the inspection, the building's heating system was not operational. The cement board floor panels were observed to be nonfriable, but were significantly damaged and should also be removed. The remaining ACM was observed to be nonfriable.

Access to the buildings interior area needs to be controlled through posting asbestos hazard warning signs at the doorways; instituting a work permit system; setting up work reviews and procedures; establishing personnel monitoring and personnel protective equipment requirements; and training all personnel accessing those areas.



#### LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- ⑫ -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 293  
SAMPLE LOCATIONS

PROJECT No.

J3947.04

DRAWN BY:

RFG

SCALE:

NTS

SHT. OF

DATE:

03-08-93

FILE:

3947AB86.DGN

FIG.



# ACM Assessment Rating Summary

Damage Assessment	Building Number:	293	Exposure Assessment
-------------------	------------------	-----	---------------------

Functional Space Number: 1 REST OF BUILDING

Occupancy: Unoccupied

Physical:	HIGH	5
Water:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0
Pipe, Boiler, or Duct insulation:	YES	3
Type ACM:	TSI NOT	1
Percent Asbestos:	> 51%	3

Material Friability:	HIGH	3
Occupant Accessibility to ACM:	LOW	0
Activity/Use:	NONE	0
Air Stream/Plenum:	ACM OCCASIONAL	2
Area of surface or damaged ACM:	101-1000 LF	2
Occupied Facility:	N/A	0
Unoccupied Facility:	F DAMAGED	5

Total 12

Total 12

ACM Assessment Rating: C

Functional Space Number: 2 BOILER & ATTIC

Occupancy: Unoccupied

Physical:	HIGH	5
Water:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0
Pipe, Boiler, or Duct insulation:	YES	3
Type ACM:	TSI NOT	1
Percent Asbestos:	> 51%	3

Material Friability:	HIGH	3
Occupant Accessibility to ACM:	LOW	0
Activity/Use:	NONE	0
Air Stream/Plenum:	ACM OCCASIONAL	2
Area of surface or damaged ACM:	> 1000 LF	3
Occupied Facility:	N/A	0
Unoccupied Facility:	F DAMAGED	5

Total 12

Total 13

ACM Assessment Rating: C

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 293					AMMO QUALITY FACILITY				
Location		Material			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
RM-01	HALLWAY	CF-01	NF	530 SF	>25	S	H	SIGNIFICANT DAMAGE - CEMENTOUS FLOORING RED IN COLOR, POSSIBLE A CONDUCTIVE TYPE MATERIAL CASING TOO DAMAGED FOR REPAIRS- SIGNIFICANT DAMAGE	
	HALLWAY	PI-02	F	12 LF	>25	S	H		
RM-02	TOOL SUPPLY	CF-01	NF	315 SF	>25	S	H	BAD SHAPE NOT REPAIRABLE TABLE COVERING	
	TOOL SUPPLY	MM-01	NF	30 SF	10	D	M		
RM-03	EMPTY/OLD AMMO ROOM	MM-01	NF	30 SF	10	D	M	SIGNIFICANT DAMAGE	
	EMPTY/OLD AMMO ROOM	CF-01	NF	315 SF	>25	S	H		
RM-04	OFFICE	FT-01	NF	50 SF	>25	S	H	FLOOR BOARD W/MASTIC	
	OFFICE	FT-02	NF	200 SF	>25	S	H		
	OFFICE	MM-03	NF	25 SF	>25	S	H		
RM-05	OFFICE	CF-01	NF	440 SF	>25	S	H		
	OFFICE	FT-01	NF	10 SF	>25	S	H		
RM-06	RESTROOM	PI-01	NF	100 LF	>25	S	H		
	RESTROOM	FI-01	F	20 EA	>25	S	H		
	RESTROOM	PI-02	F	50 LF	>25	S	H		
RM-07	SEWING ROOM	CF-01	NF	315 SF	>25	S	H	FOUND INSIDE A HOLE IN THE METAL COVERING ON THE WALLS. IT COULD BE ASSUMED TO BE BEHIND THE WALLS THROUGHOUT THE BUILDING >5000 FT2	
	SEWING ROOM	MM-02	F	*** SF	>10	D	M		
RM-08	EMPTY ROOM	CF-01	NF	340 SF	>25	S	H		
RM-09	EMPTY ROOM	CF-01	NF	315 SF	>25	S	H		
	EMPTY ROOM	PI-02	F	15 LF	>25	S	H		
	EMPTY ROOM	FI-02	F	2 EA	>25	S	H		
RM-10	EMPTY ROOM	CF-01	NF	315 SF	>25	S	H		
	EMPTY ROOM	MM-01	NF	30 SF	10	D	M		
RM-11	BOILER ROOM	PI-01	F	250 LF	10	D	H	DETERIORATED BY OLD AGE AND NO MAINTANCE DETERIORATED SIGNIFICANT DAMAGE	
	BOILER ROOM	FI-01	F	30 EA	10	D	H		
	BOILER ROOM	DI-01	F	200 SF	>25	S	H		
RM-12	HALLWAY	PI-03	F	20 LF	10	D	H	UNHEATED AND NO MAINTENANCE	
	HALLWAY	FI-01	F	10 EA	10	D	H		
RM-13	ATTIC	FI-01	F	120 EA	10	D	H	SIGNIFICANTLY	
	ATTIC	PI-01	F	400 LF	>25	S	H		
Touch: F =Friable NF=Nonfriable			Extent: Percent of Damage				Potential: For Damage L=Low M=Moderate H=High		
Amount: SF=Square Feet LF=Linear Feet			Assess: G=Good D=Damaged S=Significantly Damaged						
Inspector:	BRYAN, TERI						Inspection Date:	01/28/93	

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....								Notes
Code	Use	Code	Touch	Amount	Extent	Assess	Potential			
RM-13	ATTIC	PI-02	F	280 LF	>25	S	H	DAMAGED-TOO DAMAGED FOR REPAIRS SIGNIFICANT DAMAGE		
	ATTIC	PI-03	F	10 LF	>25	S	H	SIGNIFICANT DAMAGE		
	ATTIC	DI-01	F	1200 SF	>25	S	H	SIGNIFICANT DAMAGE		
EXTERIOR	ROOF	RM-01	NF	4200 SF	<10	G	L	TARS, AND FELTS		

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 01/28/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 293			AMMO QUALITY FACILITY						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CF-01	CEMENTOUS FLOORING	RED CEMENT LIKE LAYER	0.50	I	M	N	N	1405	RM-05
DI-01	DUCT INSULATION	SHEETS OF AIRCELL	1.00	I	T	Y	Y	1478 1482 1486	RM-13 RM-13 RM-13
FI-01	FITTING INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1479 1481 1484 1411	RM-13 RM-13 RM-13 RM-06
FT-01	FLOOR TILE	2' X 2' BLACK	0.25	I	M	N	Y	1412	RM-04
FT-02		9" X 9" RED	0.25	I	M	N	Y	1413	RM-04
MM-01	TABLE COVERING	BLACK RUBBER COVERING W/WOVEN BACK	0.25	I	M	N	N	1406	RM-02
MM-02	WALL INSULATION	BROWN FIBEROUS, BEHIND METAL COVERING ON WALLS	1.00	I	M	Y	N	1407  1408	RM-07  RM-07
MM-03	FLOOR BOARD	FLOOR BOARD W/MASTIC	0.25	I	M	N	Y	1414	RM-04
PI-01	PIPE INSULATION	FELT WRAP	1.00	I	T	Y	N	1476 1477 1485 1410	RM-12 RM-13 RM-13 RM-06
PI-02		AIRCELL	1.00	I	T	Y	Y	1480 1483 1487 1409	RM-13 RM-13 RM-13 RM-01
PI-03		WHITE CHALKY	1.00	I	T	Y	Y	1488	RM-13
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 01/28/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
293	1405	001	AMOS	LT	1	ZKS
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1406	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1407	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1408	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1409	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1410	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1411	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1412	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		43	
			CROCO	LT	1	
			TREACT	LT	1	
	1413	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		36	
			CROCO	LT	1	
			TREACT	LT	1	
	1414	010	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		36	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
293	1476	010	AMOS	LT	1	ZPR
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1477	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1478	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		25	
			CROCO	LT	1	
			TREACT	LT	1	
	1479	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	1480	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	1481	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	1482	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	1483	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	
	1484	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	1485	001	AMOS	LT	1	ZPQ
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
293	1485	001	TREACT	LT	1	ZPQ
	1486	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	1487	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	1488	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		80	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 293

AMMO QUALITY FACILITY

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 TARS AND FELTS	N	G	4200 SF	N/A	N/A	Operations & Maintenance
RM-01	PI-02 AIRCELL	Y	S	12 LF	19.00 LF	228.00	Removal
RM-04	FT-01 2' X 2' BLACK	N	S	50 SF	4.00 SF	200.00	Removal
	FT-02 9" X 9" RED	N	S	200 SF	4.00 SF	800.00	Removal
	MM-03 FLOOR BOARD W/MASTIC	N	S	25 SF	7.50 SF	187.50	Removal
RM-05	FT-01 2' X 2' BLACK	N	S	10 SF	4.00 SF	40.00	Removal
RM-06	FI-01 WHITE CHALKY	Y	S	20 EA	32.00 EA	640.00	Removal
	PI-02 AIRCELL	Y	S	50 LF	19.00 LF	950.00	Removal
RM-09	PI-02 AIRCELL	Y	S	15 LF	19.00 LF	285.00	Removal
RM-11	FI-01 WHITE CHALKY	Y	D	30 EA	32.00 EA	288.00	Repairs Followed by O&M
	DI-01 SHEETS OF AIRCELL	Y	S	200 SF	19.00 SF	3800.00	Removal
RM-12	PI-03 WHITE CHALKY	Y	D	20 LF	19.00 LF	114.00	Repairs Followed by O&M
	FI-01 WHITE CHALKY	Y	D	10 EA	32.00 EA	96.00	Repairs Followed by O&M
RM-13	FI-01 WHITE CHALKY	Y	D	120 EA	32.00 EA	1152.00	Repairs Followed by O&M
	PI-02 AIRCELL	Y	S	280 LF	19.00 LF	5320.00	Removal
	PI-03 WHITE CHALKY	Y	S	10 LF	19.00 LF	190.00	Removal
	DI-01 SHEETS OF AIRCELL	Y	S	1200 SF	19.00 SF	22800.00	Removal

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	S	260 SF	\$ 1040.00
PI	Pipe Insulation	D	20 LF	\$ 114.00
PI	Pipe Insulation	S	367 LF	\$ 6973.00
FI	Fitting Insulation	D	160 EA	\$ 1536.00
FI	Fitting Insulation	S	20 EA	\$ 640.00
DI	Duct Insulation	S	1400 SF	\$26600.00
RM	Roofing Materials	G	4200 SF	\$ 0.00
MM	Misc. Materials	S	25 SF	\$ 187.50

\$ 37090.50

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.



SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 1 of 2  
Date 1-28-43.

1. Project No. J3947.04 JPG  
2. Project Name Task Order 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Bag No	7. Remarks
1405	Bulk Asbestos	1-28-93	293	B
1406				B
1407				B
1408				B
1409				B
1410				B
1411				B
1412				B
1413				B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	1-28-93	Asbestos	<i>[Signature]</i>	2/1/93
				Sum. Inc.

SEC Donohue, Inc.

Grand Junction, Colorado 81506

## CHAIN OF SAMPLE CUSTODY

Page 2 of 2  
Date 1-28-93

1. Project No. 13947.04 2. Project Name JPG Task Order 4

[illegible]

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 1 of 2  
 Date 2-10-93

1. Project No. J3947.04 2. Project Name JPG Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Sampled	7. Remarks
1476	Bulk Asbestos	2-10-93	293	B Samplers / 11/7/26
1477	/	/	/	B
1478	/	/	/	B
1479	/	/	/	B
1480	/	/	/	B
1481	/	/	/	B
1482	/	/	/	B
1483	/	/	/	B
1484	/	/	/	B
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	2-10-93	Asbestos	Mary Dean DCL	2-15-93
			Department	Sample Rec.

SEC Donohue, Inc.  
7743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 2 of 2  
Date 2-10-93

1. Project No. 13947.04      2. Project Name SPR Task Order 5

[illegible]

# BUILDING 295

## 1.0 INTRODUCTION

Building 295 was inspected for ACM by Jeffrey R. Prescher (Indiana Building Inspector License No. 191923103) of Rust E&I on January 28, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 295 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## 2.0 BUILDING DESCRIPTION

### 2.1 Features

- Concrete frame construction on concrete slab at grade, containing 31,280 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from an external location--possibly the central boiler plant.
- The building is insulated in some rooms with soundproofing by fiberglass batts.
- The building interior is finished with cement board ("Transite") wall and ceiling panels.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with asphalt-based roofing tars and felts.

## **2.2 Building Use**

At the time of inspection, the building was being used as a small arms firing range and storage facility and was unoccupied. The facility is used for target practice less than once a week by 1 to 2 people.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 138 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 41 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 140 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 23 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 2 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 36 areas of packed "fitting" insulation on pipes otherwise insulated with fiberglass material. This insulation was observed to be in fair condition with evidence of physical damage or material deterioration in Room 8.
- 11,015 square feet of cement board ("Transite") wall and ceiling panels. These panels were observed to be in generally good condition with minor areas of isolated damage.
- 15,640 square feet of roofing tars and felts. These tars and felts were observed to be in generally good condition with minor areas of isolated damage.
- 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were observed to be in good condition.

#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating C**, there is some damaged friable ACM in an infrequently used area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

#### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be fair to good as noted above. Pipe insulations were observed to be friable, while other ACMs were nonfriable.



184'-0"

9242

9245

9243

6

2

9244

7

3

1

8

4

9

5

85'-0"

ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- 12 -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 295  
SAMPLE LOCATIONS

PROJECT No.

J3947.04

DRAWN BY:

RFG

SCALE:

NTS

SHT. 1 OF 2

DATE:

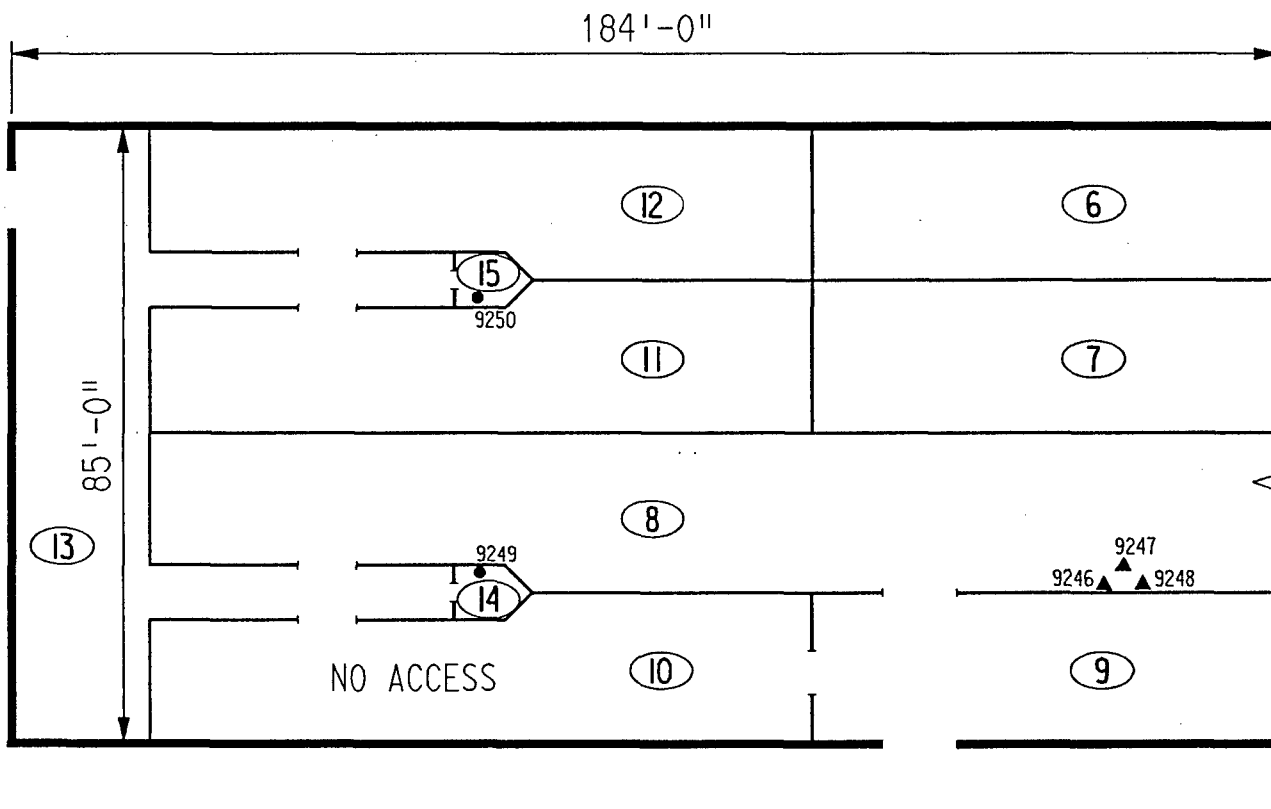
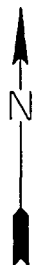
03-08-93

FILE:

3947AB99.DGN

FIG.





ASSUMED ASBESTOS ROOFING COMPONENTS

<p>LEGEND</p> <ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> <li>7008 -SAMPLE NUMBER (TYPICAL)</li> <li>⑫ -ROOM NUMBER (TYPICAL)</li> </ul>		<p>CLIENT: USAEC</p>	
		<p>LOCATION: Jefferson Proving Ground</p>	
		<p>TITLE: BUILDING 295 SAMPLE LOCATIONS</p>	
PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. 2 OF 2
J3947.04	DATE: 06-04-93	FILE: 3947AB85.DGN	FIG.

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 295</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b> 1	<b>ENTIRE STRUCTURE</b>		<b>Occupancy: Unoccupied</b>	
Physical:	MODERATE	3	Material Friability:	MODERATE 2
Water:	NONE	0	Occupant Accessibility to ACM:	MODERATE 1
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW 1
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	10-100 LF 1
Percent Asbestos:	> 51 %	3	Occupied Facility:	N/A 0
			Unoccupied Facility:	F DAMAGED 5
	<b>Total</b>	<b>11</b>	<b>Total</b>	<b>12</b>
<b>ACM Assessment Rating: C</b>				

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 295		AMMO QUALITY FAC./STORAGE						
Code	Location Use	Code	Touch	Amount	Extent	Assess	Potential	Notes
RM-01	HALLWAY	PI-01	F	100	LF	<10	G	M
	HALLWAY	FI-01	F	35	EA	<10	G	M
	HALLWAY	PI-02	F	60	LF	<10	G	M
	HALLWAY	PI-03	F	10	LF	<10	G	M
	HALLWAY	FI-02	F	20	EA	<10	G	M
	HALLWAY	CB-01	NF	2400	SF	<10	G	L
RM-02	RANGE ENTRY	CB-01	NF	1275	SF	<10	G	L
	RANGE ENTRY	PI-01	F	10	LF	<10	G	M
	RANGE ENTRY	PI-02	F	20	LF	<10	G	M
	RANGE ENTRY	FI-02	F	1	EA	<10	G	M
	RANGE ENTRY	FI-01	F	2	EA	<10	G	M
RM-03	RANGE ENTRY	FI-01	F	2	EA	<10	G	M
	RANGE ENTRY	PI-01	F	10	LF	<10	G	M
	RANGE ENTRY	PI-02	F	20	LF	<10	G	M
	RANGE ENTRY	CB-01	NF	1275	LF	<10	G	L
	RANGE ENTRY	CB-01	NF	1275	LF	<10	G	L
RM-04	RANGE ENTRY	CB-01	NF	1275	LF	<10	G	L
	RANGE ENTRY	PI-01	F	10	LF	<10	G	M
	RANGE ENTRY	FI-01	F	2	EA	<10	G	M
	RANGE ENTRY	FI-02	F	1	EA	<10	G	M
	RANGE ENTRY	PI-02	F	20	LF	<10	G	M
RM-05	RANGE ENTRY	PI-02	F	20	LF	<10	G	M
	RANGE ENTRY	FI-02	F	1	EA	<10	G	M
	RANGE ENTRY	PI-01	F	8	LF	<10	G	M
	RANGE ENTRY	CB-01	NF	1275	SF	<10	G	L
RM-06	RANGE	-			<10			NO SUSPECT ACM MATERIALS
RM-07	RANGE	-			<10			NO SUSPECT ACM MATERIALS
RM-08	RANGE	FI-04	F	36	EA	<25	D	H
RM-09	RANGE	CB-01	NF	42	SF	<10	G	L
RM-10	RANGE	-			<10			NO ACCESS
RM-11	RANGE	-			<10			NO SUSPECT ACM MATERIALS
RM-12	RANGE	-			<10			NO SUSPECT ACM MATERIALS
RM-13	HALLWAY	MM-01	NF	2	SF	<10	G	L
RM-14	TELEPHONE ROOM	CB-01	NF	1120	SF	<10	G	L
RM-15	TELEPHONE ROOM	CB-01	NF	1120	SF	<10	G	L
EXTERIOR	ROOF	RM-01	NF	15640	SF	<10	G	L TARS AND FELTS
RM-01	HALLWAY	FI-03	F	2	EA	<10	G	M

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PRESCHER, JEFF

Inspection Date: 01/28/93

# *Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 295	AMMO QUALITY FAC./STORAGE						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENTOUS BOARD	TRANSITE TYPE CEMENT PANELS	0.25	I	M	N	Y	9245	RM-02
								9249	RM-14
								9250	RM-15
FI-01	FITTING INSULATION	ON MAG	1.00	I	T	Y	ASSUMED		
FI-02		ON AIRCELL	1.00	I	T	Y	ASSUMED		
FI-03		ON FELT WRAP	1.00	I	T	Y	ASSUMED		
FI-04		ON FIBERGLASS	1.00	I	T	Y	Y	9246	RM-08
								9247	RM-08
								9248	RM-08
MM-01	ELECTRICAL PANELS	TRANSITE TYPE INSULATOR PANELS	0.50	I	M	N	ASSUMED		
PI-01	PIPE INSULATION	MAGNESIUM CABONATE (MAG)	1.00	I	T	Y	Y	9242	RM-01
PI-02		AIRCELL	1.00	I	T	Y	Y	9243	RM-01
PI-03		FELT WRAP	1.00	I	T	Y	N	9244	RM-01
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: PRESCHER, JEFF

Inspection Date: 01/28/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
295	9242	028	AMOS		50	ZKV
			ANPHO	LT	1	
			CHRYIS		20	
			CROCO	LT	1	
			TREACT	LT	1	
	9243	029	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		80	
			CROCO	LT	1	
			TREACT	LT	1	
	9244	030	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9245	031	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		55	
			CROCO	LT	1	
			TREACT	LT	1	
	9246	032	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		60	
			CROCO	LT	1	
			TREACT	LT	1	
	9247	033	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		30	
			CROCO	LT	1	
			TREACT	LT	1	
	9248	034	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		60	
			CROCO	LT	1	
			TREACT	LT	1	
	9249	035	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		60	
			CROCO	LT	1	
			TREACT	LT	1	
	9250	036	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYIS		60	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRYIS=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 295

AMMO QUALITY FAC./STORAGE

Location .....		Material .....		Cost Per		Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR	RM-01	TARS AND FELTS	N	G	15640 SF	N/A	N/A Operations & Maintenance
RM-01	PI-01	MAGNESIUM CABONATE (MAG)	Y	G	100 LF	N/A	N/A Operations & Maintenance
	FI-01	ON MAG	Y	G	35 EA	N/A	N/A Operations & Maintenance
	PI-02	AIRCELL	Y	G	60 LF	N/A	N/A Operations & Maintenance
	FI-02	ON AIRCELL	Y	G	20 EA	N/A	N/A Operations & Maintenance
	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	2400 SF	N/A	N/A Operations & Maintenance
	FI-03	ON FELT WRAP	Y	G	2 EA	N/A	N/A Operations & Maintenance
RM-02	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	1275 SF	N/A	N/A Operations & Maintenance
	PI-01	MAGNESIUM CABONATE (MAG)	Y	G	10 LF	N/A	N/A Operations & Maintenance
	PI-02	AIRCELL	Y	G	20 LF	N/A	N/A Operations & Maintenance
	FI-02	ON AIRCELL	Y	G	1 EA	N/A	N/A Operations & Maintenance
	FI-01	ON MAG	Y	G	2 EA	N/A	N/A Operations & Maintenance
RM-03	FI-01	ON MAG	Y	G	2 EA	N/A	N/A Operations & Maintenance
	PI-01	MAGNESIUM CABONATE (MAG)	Y	G	10 LF	N/A	N/A Operations & Maintenance
	PI-02	AIRCELL	Y	G	20 LF	N/A	N/A Operations & Maintenance
	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	1275 LF	N/A	N/A Operations & Maintenance
	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	1275 LF	N/A	N/A Operations & Maintenance
RM-04	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	1275 LF	N/A	N/A Operations & Maintenance
	PI-01	MAGNESIUM CABONATE (MAG)	Y	G	10 LF	N/A	N/A Operations & Maintenance
	FI-01	ON MAG	Y	G	2 EA	N/A	N/A Operations & Maintenance
	FI-02	ON AIRCELL	Y	G	1 EA	N/A	N/A Operations & Maintenance
	PI-02	AIRCELL	Y	G	20 LF	N/A	N/A Operations & Maintenance
RM-05	PI-02	AIRCELL	Y	G	20 LF	N/A	N/A Operations & Maintenance
	FI-02	ON AIRCELL	Y	G	1 EA	N/A	N/A Operations & Maintenance
	PI-01	MAGNESIUM CABONATE (MAG)	Y	G	8 LF	N/A	N/A Operations & Maintenance
	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	1275 SF	N/A	N/A Operations & Maintenance
RM-08	FI-04	ON FIBERGLASS	Y	D	36 EA	32.00 EA	345.60 Repairs Followed by O&M
RM-09	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	42 SF	N/A	N/A Operations & Maintenance
RM-13	MM-01	TRANSITE TYPE INSULATOR PANELS	N	G	2 SF	N/A	N/A Operations & Maintenance
RM-14	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	1120 SF	N/A	N/A Operations & Maintenance
RM-15	CB-01	TRANSITE TYPE CEMENT PANELS	N	G	1120 SF	N/A	N/A Operations & Maintenance

## ACM Corrective Action Expense and Response Action Recommendations

Building: 295

AMMO QUALITY FAC./STORAGE

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	G	278 LF	\$ 0.00
FI	Fitting Insulation	G	66 EA	\$ 0.00
FI	Fitting Insulation	D	36 EA	\$ 345.60
RM	Roofing Materials	G	15640 SF	\$ 0.00
CB	Cementous Board	G	11057 SF	\$ 0.00
MM	Misc. Materials	G	2 SF	\$ 0.00
				\$ 345.60

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1/28/93

1. Project No. J3947.04 2. Project Name JRG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume in Liters	7. Remarks	8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
9242	Bulk Aerosols	1/28/93	Bude #295	JRP						
9243				JRP						
9244				JRP						
9245				JRP						
9246				JRP						
9247				JRP						
9248				JRP						
9249				JRP						
9250				JRP						
J. R. Donohue						1-28-93	Arctic	856236	2-1-93	Sample Control

DCL



# **BUILDING 296**

## **1.0 INTRODUCTION**

Building 296 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 1, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 112 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 150 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

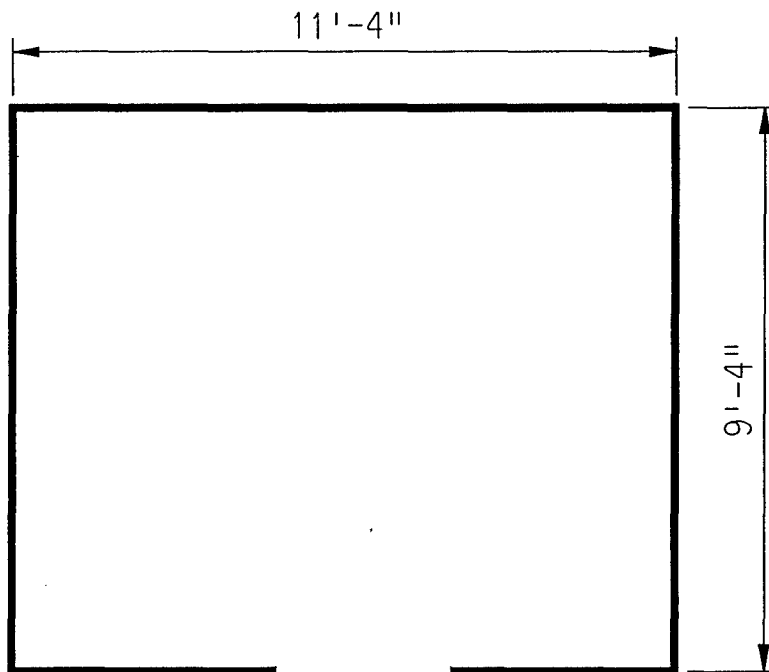
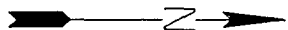
### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ELECTRICAL PANEL INSULATION

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>(12) -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 296 BUILDING LAYOUT			
PROJECT No.		DRAWN BY:	SCALE:	SHT. OF	
J3947.04		RFG	NTS		
		DATE:	FILE:	FIG.	
		03-08-93	3947AD01.DGN		

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number:</b> 296	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b> 1	<b>ENTIRE BUILDING</b>		<b>Occupancy:</b> Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
	<b>Total</b>	<b>0</b>		<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating:</b> F					

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	<2 SF	<10	G	L	POSSIBLE TRANSITE INSULATORS INSIDE ELECTRICAL BOXES
EXTERIOR	ROOF	RM-01	NF	150 SF	<10	G	L	SHINGLES FELTS, AND TARS

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/01/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 296		TRANSFORMER HOUSE						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)	
MM-01	ELECTRICAL PANELS	TRANSITE INSULATORS INSIDE PANELS	0.50	I	M	N	ASSUMED			
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED			

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/01/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 296

TRANSFORMER HOUSE

Location .....		Material.....				Cost Per	Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	150 SF	N/A	N/A	Operations & Maintenance
INTERIOR	MM-01	TRANSITE INSULATORS INSIDE PAN	N	G	<2 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	150 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 297**

## **1.0 INTRODUCTION**

Building 297 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 9, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade with a built-up asphalt-based roof.
- The building area is 165 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house but was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 120 square feet of roofing tars and felts. These tars and felts were observed to be in good condition.



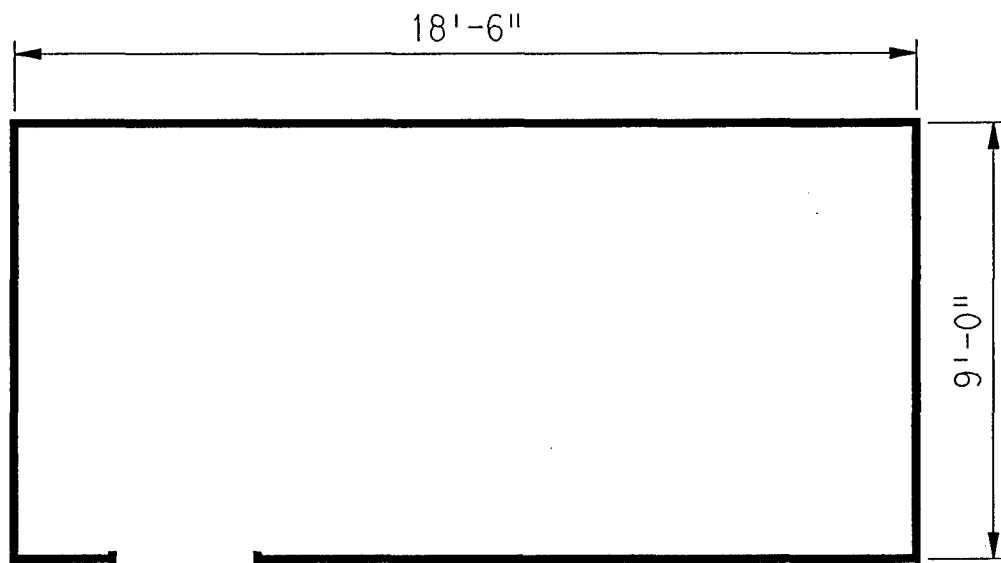
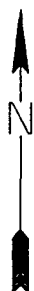
#### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### 5.0 ADDITIONAL COMMENTS

ACM was observed to be nonfriable and in good condition. This ACM is not considered to be a significant environmental concern.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)		LOCATION: Jefferson Proving Ground			
■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)		TITLE: BUILDING 297 BUILDING LAYOUT			
▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)					
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
(12)	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 03-08-93	FILE: 3947AD02.DGN	FIG.

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 297		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0	
			Unoccupied Facility:	NF GOOD	1	
		Total	0			
ACM Assessment Rating:		F	Total		0	

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 297

SAFE HOUSE

.....Location..... Code Use	.....Material..... Code Touch Amount	Extent	Assess	Potential	Notes
INTERIOR SAFE HOUSE		<10			NO SUSPECT ACM MATERIALS
EXTERIOR SAFE HOUSE ROOF	RM-01 NF 120 SF	<10	G	L	TARS AND FELTS

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 297

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 02/09/93

# ACM Corrective Action Expense and Response Action Recommendations

Building: 297

SAFE HOUSE

Location .....		Material.....		Cost Per Expense		Response Action	
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01	TARS AND FELTS	N	G	120 SF	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	120 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 298**

## **1.0 INTRODUCTION**

Building 298 was inspected for ACM by Karen Hendrickson (Indiana Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

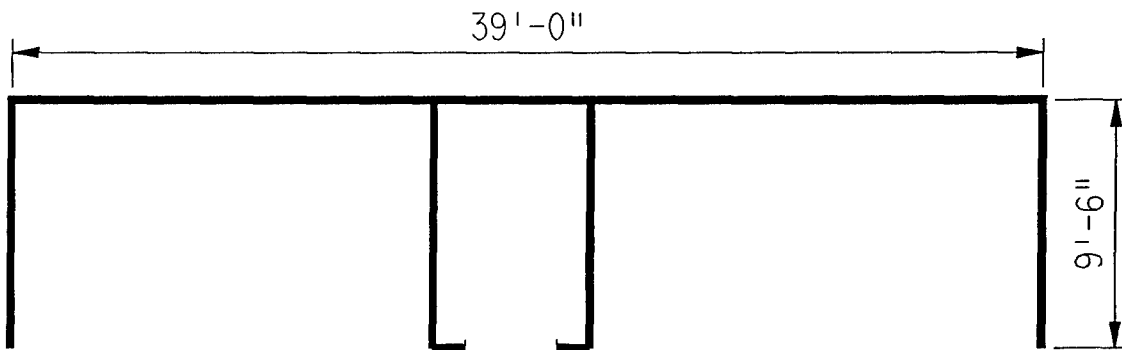
- Concrete construction

### **2.2 Building Use**

At the time of the inspection, the building was being used as a firing line safe shelter and was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.



NO SUSPECT ACBM

LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- (12) -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

**BUILDING 298  
BUILDING LAYOUT**

PROJECT No.

J3947.04

DRAWN BY:

MLC

SCALE:

NTS

SHT. OF

DATE:

03-11-93

FILE:

3947AB98.DGN

FIG.



# ACM Assessment Rating Summary

Damage Assessment			Building Number: 298		Exposure Assessment	
<b>Functional Space Number: 1 ENTIRE BUILDING</b>			<b>Occupancy: Unoccupied</b>			
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1%	0	
		<b>Total</b>			<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating: F , no ACM</b>						

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 298      SAFE HOUSE

.....Location..... Code      Use	.....Material..... Code    Touch    Amount	Extent	Assess	Potential	Notes
INT/EXT    SAFE HOUSE		<10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
      NF=Nonfriable

Amount: SF=Square Feet  
      LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
      D=Damaged  
      S=Significantly Damaged

Potential: For Damage  
      L=Low  
      M=Moderate  
      H=High

Inspector:    HENDRICKSON, KAREN

Inspection Date:    02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 298      SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	SAFE HOUSE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 298

SAFE HOUSE

Location	Material	Cost Per Expense	Response Action
Code	Description	Friable Condition Amount	Unit Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 299**

## **1.0 INTRODUCTION**

Building 299 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 1, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 299 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade with a built-up asphalt-based roof.
- The building area is 285 square feet.
- The building is finished in the observatory room with acoustical ceiling panels/tiles.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house and was unoccupied.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 170 square feet of roofing tars and felts. These tars and felts were observed to be in good condition.

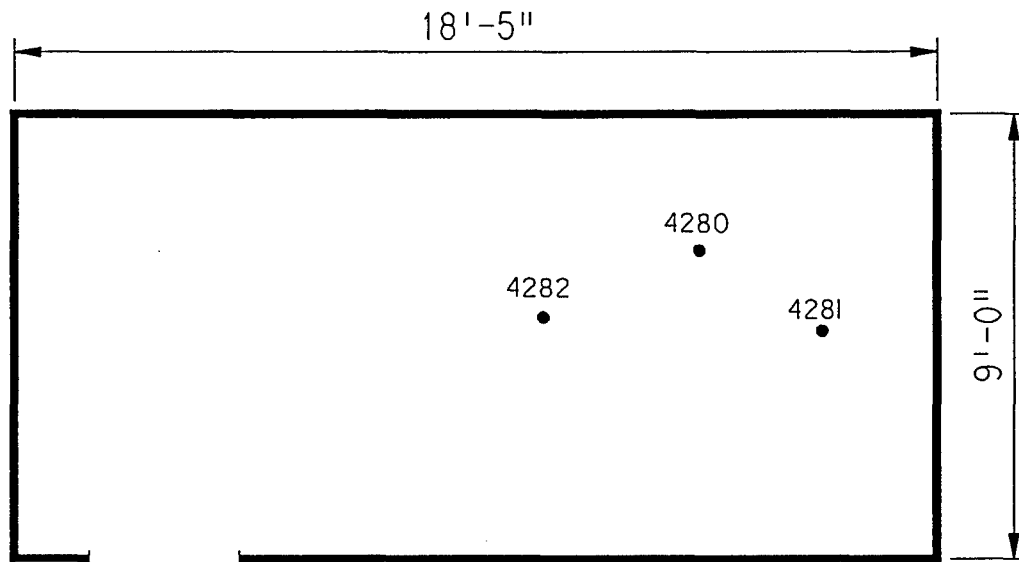
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: ACM Assessment Rating F, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

ACM was observed to be nonfriable and in good condition. This ACM is not considered to be a significant environmental concern. The ceiling tile indoors was sampled and determined not to be ACM and is of no concern.



LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 299 SAMPLE LOCATIONS			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: RFG	SCALE: NTS	SHT. OF
		J3947.04	DATE: 03-08-93	FILE: 3947AD04.DGN	FIG.

# ACM Assessment Rating Summary

Damage Assessment		Building Number: 299		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		Total	0	Total	0
ACM Assessment Rating:		F			



# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 299		SAFE SHELTER							
.....Location.....	.....Material.....								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	OBSERVATION ROOM/2ND FLOOR	CT-01	NF	170 SF	<10	D	M		
EXTERIOR	ROOF	RM-01	NF	170 SF	<10	G	L	BUILT UP ROOFING MATERIALS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/01/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 299

SAFE SHELTER

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CT-01	CEILING TILE	12" X 12" WHITE CELLULOSE-TYPE	0.50	I	M	Y	N	4280	INTERIOR
								4281	INTERIOR
								4282	INTERIOR
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/01/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
299	4280	006	AMOS	LT	1	ZMA
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4281	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4282	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 299

SAFE SHELTER

Location Code	Code	Description	Material Friable	Condition	Amount	Cost Per Unit	Expense Estimate	Response Action Recommendation
EXTERIOR	RM-01	TARS AND FELTS	N	G	170 SF	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	170 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

Page 1 of 1  
Date 2-1-93

## CHAIN OF SAMPLE CUSTODY

1. Project No. J 3947, 04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume <sup>Building</sup> In-Liters Number	7. Remarks
4280	Bulk Asbestos	2-1-93	299	
4281	↓	↓	↓	
4282	↓	↓	↓	
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
Bud L. Smith	2-1-93	Asbestos	<del>B. L. Smith</del> B. L. Smith	2/5/93 Steno for

# **BUILDING 300**

## **1.0 INTRODUCTION**

Building 300 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 402 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house and was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- Less than 2 cubic feet of cement board ("Transite) electric panel transformer insulators or wire insulation. These materials were inaccessible for inspection, but were assumed to be in satisfactory condition.

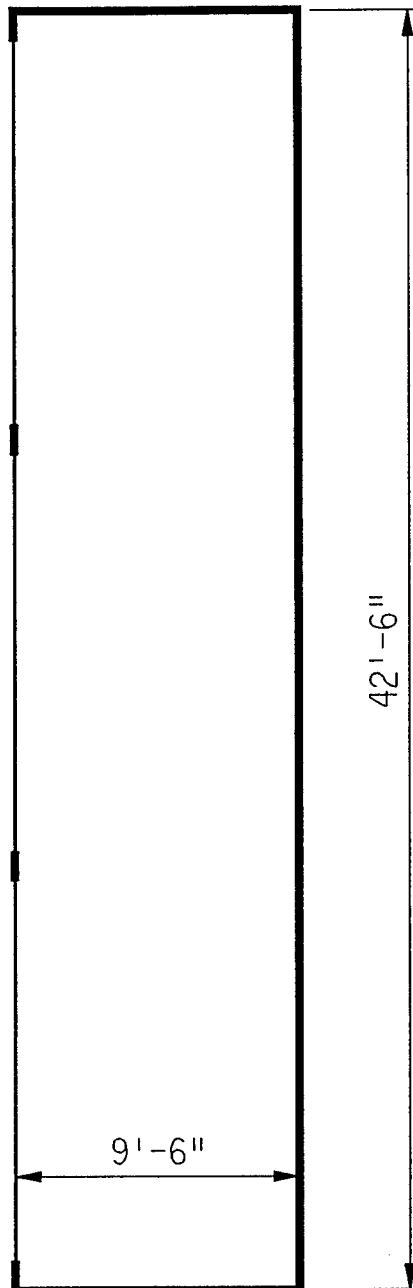
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was inaccessible for inspection. This ACM is typically nonfriable and not considered to be a significant environmental concern.



ASSUMED ASBESTOS ELECTRICAL INSULATORS

<p>LEGEND</p> <ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>①② -ROOM NUMBER (TYPICAL)</p>		CLIENT: USAEC			
		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 300 BUILDING LAYOUT			
		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
		J3947.04	DATE: 05-03-93	FILE: 3947AC48.DGN	FIG.



### ACM Assessment Rating Summary

Damage Assessment		Building Number: 300		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	NONE	0
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<b>Total</b>	<b>0</b>	<b>Total</b>	<b>0</b>
ACM Assessment Rating: F					

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 300

SAFE HOUSE

.....Location.....		.....Material.....				Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount					
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	2 SF	<10		G	L	ACM MAY BE USED AS WIRE INSULATION OR TRANSITE INSULATORS MAY BE PRESENT INSIDE ELECTRICAL BOXES

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 300		SAFE HOUSE						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)	
MM-01	ELECTRICAL PANELS	WIRE INSULATION OR INSULATORS	0.50	I	M	N	ASSUMED			

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 300				SAFE HOUSE			
Location .....				Material.....			
Code	Code	Description	Friable	Condition	Amount	Cost Per Expense Unit	Response Action Estimate Recommendation
INTERIOR	MM-01	WIRE INSULATION OR INSULATORS	N	G	2 SF	N/A	N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
MM	Misc. Materials	G	2 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 301**

## **1.0 INTRODUCTION**

Building 301 was inspected for ACM by Jeffrey R. Prescher (Indiana Building Inspector License No. 191923103) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 301 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Brick, concrete, and metal frame construction on concrete slab at grade, containing 23,497 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from an external source.
- The building is uninsulated.
- The building interior is finished with plaster or wallboard (i.e., sheetrock, drywall, gypsum board, etc.) walls and ceilings, "cheese-cloth" wall and ceiling lining, and vinyl floor tiles.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with roofing asphalt based roofing tars and felts.

## 2.2 Building Use

At the time of inspection, the building was being used as a storage facility. Previously, this building was used as the airport terminal/hanger.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 845 linear feet of white powdery pipe insulation ("white mag") including fittings. This insulation was observed to be in generally fair to poor condition with evidence of widespread physical damage or material deterioration, and localized significant physical damage or material deterioration in Rooms 10, 13, and 17.
- 22 linear feet of corrugated cardboard pipe insulation ("aircell") including fittings. This insulation was observed to be in fair condition with evidence of physical damage or material deterioration in Room 5.
- 30 linear feet of felt-wrap pipe insulation. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration in Room 4.
- 261 areas of packed "fitting" insulation on pipes otherwise insulated with fiberglass material. This insulation was observed to be in fair to poor condition with evidence of widespread physical damage or material deterioration, and localized physical damage or material deterioration in Rooms 3, 4, 9, 10, 11, 12, 13, 14, and 17.
- 1,138 square feet of 9" x 9" white vinyl floor tiles. These tiles were observed to be in poor condition with evidence of widespread significant physical damage or material deterioration.
- 225 square feet of 9" x 9" black vinyl floor tiles. These tiles were observed to be in poor condition with evidence of widespread significant physical damage or material deterioration.
- 9,555 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.
- Less than 4 square feet of cement board ("Transite") electrical panel insulators. These insulators were observed to be in good condition.
- An unknown amount of wire insulation on thicker gauge wires. These insulations were observed to be in poor condition with evidence of significant physical damage or material deterioration. These insulations were not sampled because of the proximity to a potential electrical shock source.

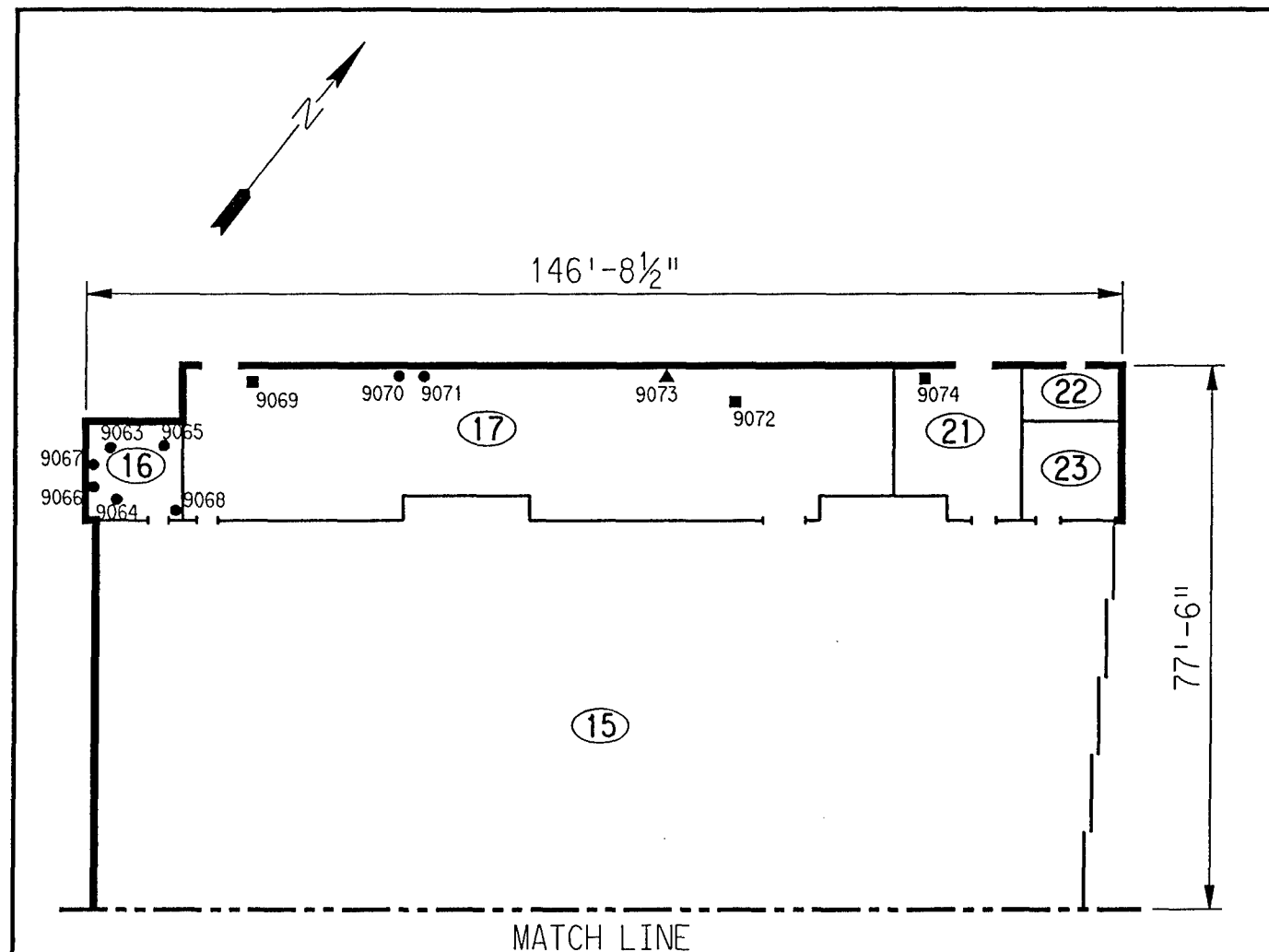
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating C**, there is significantly damaged friable asbestos in an infrequently visited area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

#### **5.0 ADDITIONAL COMMENTS**

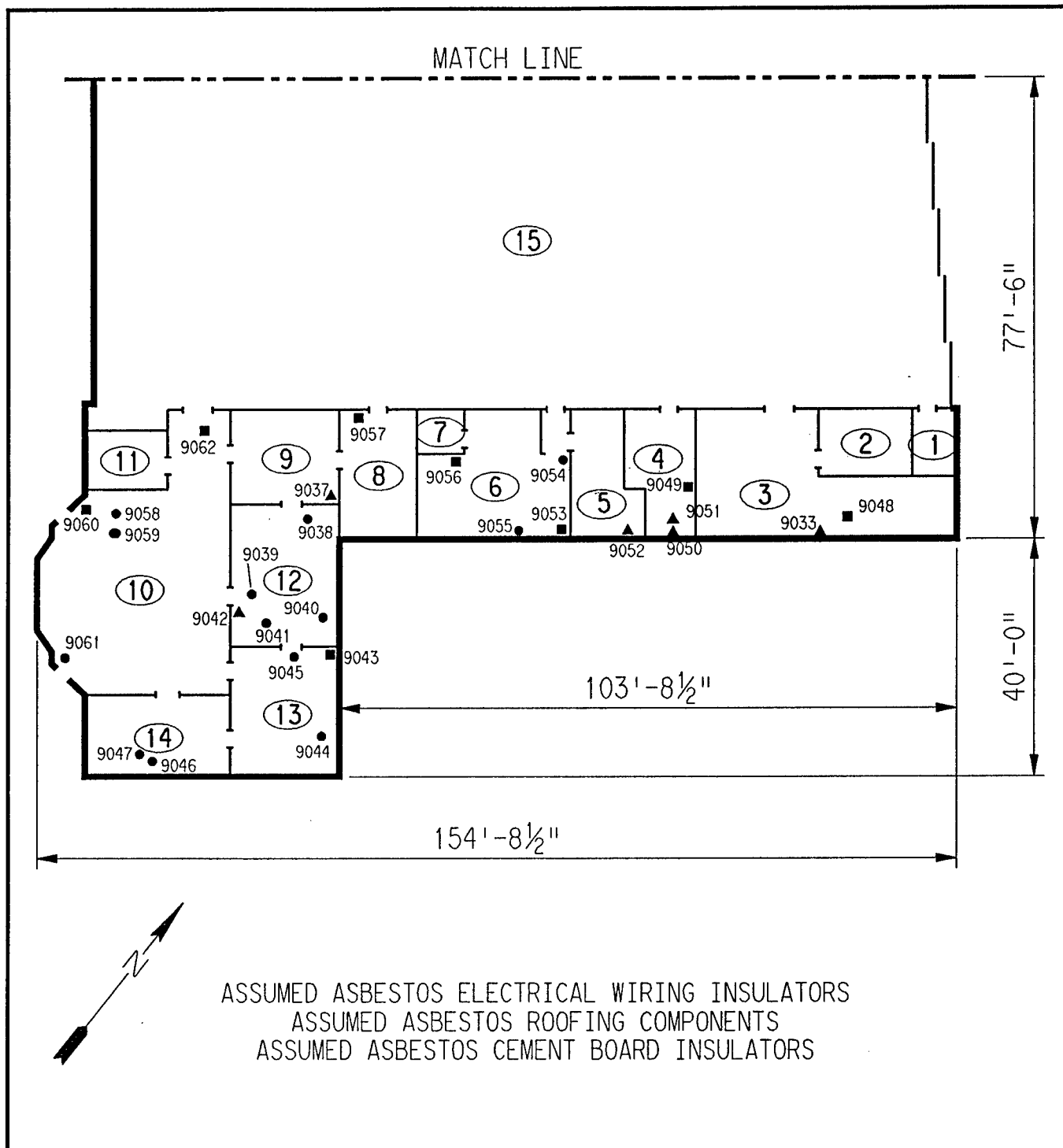
The general condition of ACM present was observed to be fair to poor with much evidence of general or significant physical damage or material deterioration. ACM pipe insulations were observed to be extremely friable. Other ACM were nonfriable because of the nature of their composition, but could easily become friable during routine physical contact because of their observed poor condition. As such, ACM should be removed prior to any reoccupancy of this facility.



ASSUMED ASBESTOS ELECTRICAL WIRING INSULATORS  
 ASSUMED ASBESTOS ROOFING COMPONENTS  
 ASSUMED ASBESTOS CEMENT BOARD INSULATORS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> <li>7008 -SAMPLE NUMBER (TYPICAL)</li> <li>(12) -ROOM NUMBER (TYPICAL)</li> </ul>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 301 SAMPLE LOCATIONS			
PROJECT No. J3947.04		DRAWN BY: JKH	SCALE: NTS	SHT. 1 OF 2	
		DATE: 05-03-93	FILE: 3947AC49.DGN	FIG.	





LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		TITLE: BUILDING 301 SAMPLE LOCATIONS			
PROJECT No. J3947.04		DRAWN BY: JKH	SCALE: NTS	SHT. 2	OF 2
		DATE: 05-03-93	FILE: 3947AC50.DGN	FIG.	

### ACM Assessment Rating Summary

Damage  
Assessment

Building Number: 301

Exposure  
Assessment

Functional Space Number: 1 ENTIRE BUILDING

Occupancy: Unoccupied

Physical:	MODERATE	3
Water:	MINOR	1
Sprayed-on or Trowelled-on:	NO MAINT.	0
Pipe, Boiler, or Duct insulation:	YES	3
Type ACM:	TSI ACCESSIBLE	2
Percent Asbestos:	> 51%	3
<b>Total</b>		<b>12</b>

Material Friability:	HIGH	3
Occupant Accessibility to ACM:	LOW	0
Activity/Use:	LOW	1
Air Stream/Plenum:	ACM OCCASIONAL	2
Area of surface or damaged ACM:	10-100 LF	1
Occupied Facility:	N/A	0
Unoccupied Facility:	F DAMAGED	5
<b>Total</b>		<b>12</b>

ACM Assessment Rating: C

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 301				WAREHOUSE/AIRPORT HANGER					
Location.....		Material.....			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
RM-01	DOOR STORAGE	CP-01	NF	90	SF	<10	G	M	
RM-03	VACANT/STORAGE	CP-01	F	700	SF	>25	S	H	SIGNIFICANT DAMAGE
	VACANT/STORAGE	PI-01	F	110	LF	10	D	M	
	VACANT/STORAGE	FI-01	F	30	EA	10	D	M	
	VACANT/STORAGE	MM-01	F	?		>25	S	H	WINDOW CAULKING
RM-04	MENS RESTROOM	MM-01	F	?		>25	S	H	
	MENS RESTROOM	WP-01	F	3300	SF	>25	S	H	9049 SAMPLE #
	MENS RESTROOM	CP-01	F	240	SF	10	D	H	
	MENS RESTROOM	PI-01	F	130	LF	10	D	M	
	MENS RESTROOM	PI-02	F	30	LF	<10	G	L	
	MENS RESTROOM	FI-01	F	37	EA	10	D	M	
RM-05	WOMENS RESTROOM	WP-01	F	3400	SF	10	D	H	
	WOMENS RESTROOM	CP-01	F	240	SF	10	D	H	
	WOMENS RESTROOM	PI-01	F	70	LF	10	D	M	
	WOMENS RESTROOM	PI-03	F	22	LF	10	D	M	
	WOMENS RESTROOM	FI-01	F	24	EA	10	D	M	
	WOMENS RESTROOM	MM-01	F	?		>25	S	H	
RM-06	OFFICERS CLUB/VACANT	MM-01	F	?		>25	S	H	9055 SAMPLE #
	OFFICERS CLUB/VACANT	MM-02	F	?		10	D	L	9054 SAMPLE#
	OFFICERS CLUB/VACANT	WP-01	NF	180	SF	<10	G	L	9056
	OFFICERS CLUB/VACANT	CP-01	F	600	SF	<25	D	H	9053 SAMPLE#
	OFFICERS CLUB/VACANT	PI-01	F	30	LF	10	D	M	
	OFFICERS CLUB/VACANT	FI-01	F	6	EA	<10	G	M	
RM-07	STORAGE	WP-01	NF	180	SF	<10	G	L	
	STORAGE	CP-01	F	60	SF	>10	D	H	
RM-08	STORAGE	CP-01	F	315	SF	<25	D	H	
	STORAGE	MM-01	F	?		>25	S	H	
RM-09	HAZ WASTE STORAGE	WP-01	F	890	SF	10	D	H	
	HAZ WASTE STORAGE	CP-01	F	360	SF	10	D	H	
	HAZ WASTE STORAGE	PI-01	F	30	LF	10	D	M	
	HAZ WASTE STORAGE	FI-01	F	5	EA	10	D	M	
RM-10	STORAGE VACANT	WP-01	F	1150	SF	>25	S	H	
	STORAGE VACANT	CP-01	F	1100	SF	>25	S	H	9062 sample #
	STORAGE VACANT	PI-01	F	100	LF	>25	S	H	DOOR CONTACT=DISTURBANCE
	STORAGE VACANT	FI-01	F	32	EA	10	D	M	
	STORAGE VACANT	FT-01	NF	550	SF	>25	S	H	9058 SAMPLE#
	STORAGE VACANT	FT-03	NF	550	SF	>25	S	H	9059 SAMPLE#
	STORAGE VACANT	MM-01	F	?		>25	S	H	9061 SAMPLE#
RM-11	TOWER	PI-01	F	55	LF	10	D	M	4 STORIES
Touch: F =Friable NF=Nonfriable			Extent: Percent of Damage				Potential: For Damage L=Low M=Moderate H=High		
Amount: SF=Square Feet LF=Linear Feet			Assess: G=Good D=Damaged S=Significantly Damaged						
Inspector:	PRESCHER, JEFF						Inspection Date:	01/14/93	

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 301

WAREHOUSE/AIRPORT HANGER

.....Location.....	.....Material.....								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-11	TOWER	FI-01	F	14	EA	>25	S	H	
	TOWER	MM-03	F	?		10	D	L	
RM-12	HAZ WASTE	WP-01	F	1110	SF	10	D	M	
	STORAGE								
	HAZ WASTE	CP-01	F	550	SF	10	D	H	
	STORAGE								
	HAZ WASTE	PI-01	F	32	LF	10	D	M	
	STORAGE								
	HAZ WASTE	FI-01	F	17	EA	10	D	M	
	STORAGE								
	HAZ WASTE	FT-01	NF	225	SF	>25	S	H	
	STORAGE								
	HAZ WASTE	FT-02	NF	225	SF	>25	S	H	9039,9040,& 9041
	STORAGE								
RM-13	HAZ WASTE	FT-03	NF	205	SF	10	D	M	
	STORAGE								
	HAZ WASTE	FT-01	NF	205	SF	10	D	M	9044
	STORAGE								
	HAZ WASTE	WP-01	F	950	SF	10	D	H	
	STORAGE								
	HAZ WASTE	CP-01	F	510	SF	>25	S	H	
	STORAGE								
	HAZ WASTE	PI-01	F	3	LF	>25	S	H	
	STORAGE								
	HAZ WASTE	FI-01	F	8	EA	10	D	M	
	STORAGE								
RM-14	HAZ WASTE	WP-01	F	770	SF	10	D	H	
	STORAGE								
	HAZ WASTE	CP-01	F	315	SF	>25	S	H	
	STORAGE								
	HAZ WASTE	PI-01	F	25	LF	10	D	M	
	STORAGE								
	HAZ WASTE	FI-01	F	16	EA	10	D	M	
	STORAGE								
	HAZ WASTE	FT-01	NF	158	SF	10	D	M	
	STORAGE								
	HAZ WASTE	FT-03	NF	158	SF	10	D	M	
	STORAGE								
RM-16	TOWER	WB-01	NF	100	SF	10	D	M	9063,9064,9065
	TOWER	MM-04	F	10	SF	>25	S	H	9066,9067,9068
RM-17	STORAGE VACANT	CP-01	F	2200	SF	>25	S	H	9069,9072
	STORAGE VACANT	PI-01	F	180	LF	<25	D	H	9073
	STORAGE VACANT	FI-01	F	50	EA	10	D	M	
	STORAGE VACANT	MM-01	F	?		>25	S	H	9070,9071
	STORAGE VACANT	CB-01	NF	<4	SF	<10	G	L	ASSUMED
RM-21	STORAGE VACANT	CP-01	F	380	SF	>25	S	H	9074
	STORAGE VACANT	PI-01	F	80	LF	10	D	M	
	STORAGE VACANT	FI-01	F	22	EA	<10	G	M	
RM-23	DOOR STORAGE	MM-04	NF	<2	SF	<10	G	L	ASSUMED
	DOOR STORAGE	CP-01	NF	200	SF	<10	G	L	
EXTERIOR	ROOF	RM-01	NF	9555	SF	<10	G	M	ASSUMED
RM-15	MAIN HANGAR	-	NF		SF		G	L	THIS ROOM HAS BEEN ABATED

Touch: F =Friable  
NF=Nonfriable

Extent: Percent of Damage

Potential: For Damage

Amount: SF=Square Feet  
LF=Linear Feet

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

L=Low  
M=Moderate  
H=High

Inspector: PRESCHER, JEFF

Inspection Date: 01/14/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

Building Number: 301			WAREHOUSE/AIRPORT HANGER					Sample Number(s)	Sample Location(s)
Code	Name	Description	Depth	Units	Type	Friable	ACM		
CB-01	CEMENT BOARD	TRANSITE INSULATORS	0.50	I	M	N	ASSUMED		
CP-01	CEILING PLASTER	TROWLED ON SURFACING	1.00	I	S	Y	N	9048 9053 9057 9062 9069 9072 9074	RM-03 RM-06 RM-08 RM-10 RM-17 RM-17 RM-21
FI-01	FITTING INSULATION	FITTING INSULATION	1.00	I	T	Y	Y	9042	RM-12
FT-01	FLOOR TILE	9" X 9" WHITE	0.13	I	M	N	Y	9038 9044 9046 9058	RM-12 RM-13 RM-14 RM-10
FT-02		9" X 9" BLACK	0.13	I	M	N	Y	9039 9040 9041	RM-12 RM-12 RM-12
FT-03		9" X 9" GREEN	0.13	I	M	N	N	9045 9047 9059	RM-13 RM-14 RM-10
MM-01	WINDOW CAULKING	WINDOW CAULKING	0.50	I	M	Y	N	9055 9061 9070 9071	RM-06 RM-10 RM-17 RM-17
MM-02	ELECTRICAL WIRING	EXPOSED ELECTRICAL WIRING INSULATION (THIN WIRE)	0.13	I	M	Y	N	9054	RM-06
MM-03		EXPOSED ELECTRICAL WIRING INSULATION (THICK WIRE)	0.38	I	M	Y	ASSUMED		
MM-04	COVERING	CHEESE-CLOTH WALL/CEILING LINING	0.25	I	M	Y	N	9066 9067 9068	RM-16 RM-16 RM-16
PI-01	PIPE INSULATION	MAGNESIUM CARBONATE	1.00	I	T	Y	Y	9033 9037 9073	RM-03 RM-09 RM-17
PI-02		FELT WRAP	1.00	I	T	Y	Y	9050 9051	RM-04 RM-04
PI-03		AIRCELL	0.38	I	T	Y	Y	9052	RM-05
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		
WB-01	WALL BOARD	GYPSUM CEILING PANELS	0.67	I	M	N	N	9063 9064 9065	RM-16 RM-16 RM-16
WP-01	WALL PLASTER	TROWELLED SURFACING	1.00	I	S	Y	N	9043 9049 9056 9060	RM-13 RM-04 RM-06 RM-10

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PRESCHER, JEFF

Inspection Date: 01/14/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
301	9033	001	AMOS	LT	1	ZFI
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	9037		AMOS	LT	1	ZFH
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	9038	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		2	
			CROCO	LT	1	
			TREACT	LT	1	
	9039	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9040	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9041	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		15	
			CROCO	LT	1	
			TREACT	LT	1	
	9042	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		15	
			CROCO	LT	1	
			TREACT	LT	1	
	9043	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9044	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9045	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
301	9046	003	AMOS	LT	1	ZFI
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9047	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9048	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9049	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9050	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		15	
			CROCO	LT	1	
			TREACT	LT	1	
	9051	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		15	
			CROCO	LT	1	
			TREACT	LT	1	
	9052	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		85	
			CROCO	LT	1	
			TREACT	LT	1	
	9053	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9054	010	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9055	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
301	9055	011	TREACT	LT	1	ZFI
	9056	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9057	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9058	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9059	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9060	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9061	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9062	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9063	019	AMOS	LT	1	ZFH
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9064	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9065	021	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
301	9065	021	CROCO	LT	1	ZFH
			TREACT	LT	1	
	9066	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9067	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9068	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9069	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9070	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9071	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9072	015	AMOS	LT	1	ZFF
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9073	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	9074	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 301

WAREHOUSE/AIRPORT HANGER

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR	RM-01	TARS AND FELTS	N	G	9555 SF	N/A	N/A Operations & Maintenance
RM-03	PI-01	MAGNESIUM CARBONATE	Y	D	110 LF	19.00 LF	627.00 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	D	30 EA	32.00 EA	288.00 Repairs Followed by O&M
RM-04	PI-01	MAGNESIUM CARBONATE	Y	D	130 LF	19.00 LF	741.00 Repairs Followed by O&M
	PI-02	FELT WRAP	Y	G	30 LF	N/A	N/A Operations & Maintenance
	FI-01	FITTING INSULATION	Y	D	37 EA	32.00 EA	355.20 Repairs Followed by O&M
RM-05	PI-01	MAGNESIUM CARBONATE	Y	D	70 LF	19.00 LF	399.00 Repairs Followed by O&M
	PI-03	AIRCELL	Y	D	22 LF	19.00 LF	125.40 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	D	24 EA	32.00 EA	230.40 Repairs Followed by O&M
RM-06	PI-01	MAGNESIUM CARBONATE	Y	D	30 LF	19.00 LF	171.00 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	G	6 EA	N/A	N/A Operations & Maintenance
RM-09	PI-01	MAGNESIUM CARBONATE	Y	D	30 LF	19.00 LF	171.00 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	D	5 EA	32.00 EA	48.00 Repairs Followed by O&M
RM-10	PI-01	MAGNESIUM CARBONATE	Y	S	100 LF	19.00 LF	1900.00 Removal
	FI-01	FITTING INSULATION	Y	D	32 EA	32.00 EA	307.20 Repairs Followed by O&M
	FT-01	9" X 9" WHITE	N	S	550 SF	4.00 SF	2200.00 Removal
RM-11	PI-01	MAGNESIUM CARBONATE	Y	D	55 LF	19.00 LF	313.50 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	S	14 EA	32.00 EA	448.00 Removal
	MM-03	EXPOSED ELECTRICAL WIRING INSU	Y	D	?	7.50 SF	0.00 Repairs Followed by O&M
RM-12	PI-01	MAGNESIUM CARBONATE	Y	D	32 LF	19.00 LF	182.40 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	D	17 EA	32.00 EA	163.20 Repairs Followed by O&M
	FT-01	9" X 9" WHITE	N	S	225 SF	4.00 SF	900.00 Removal
	FT-02	9" X 9" BLACK	N	S	225 SF	4.00 SF	900.00 Removal
RM-13	FT-01	9" X 9" WHITE	N	D	205 SF	4.00 SF	246.00 Repairs Followed by O&M
	PI-01	MAGNESIUM CARBONATE	Y	S	3 LF	19.00 LF	57.00 Removal
	FI-01	FITTING INSULATION	Y	D	8 EA	32.00 EA	76.80 Repairs Followed by O&M
RM-14	PI-01	MAGNESIUM CARBONATE	Y	D	25 LF	19.00 LF	142.50 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	D	16 EA	32.00 EA	153.60 Repairs Followed by O&M
	FT-01	9" X 9" WHITE	N	D	158 SF	4.00 SF	189.60 Repairs Followed by O&M
RM-17	PI-01	MAGNESIUM CARBONATE	Y	D	180 LF	19.00 LF	1026.00 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	D	50 EA	32.00 EA	480.00 Repairs Followed by O&M
	CB-01	TRANSITE INSULATORS	N	G	<4 SF	N/A	N/A Operations & Maintenance
RM-21	PI-01	MAGNESIUM CARBONATE	Y	D	80 LF	19.00 LF	456.00 Repairs Followed by O&M
	FI-01	FITTING INSULATION	Y	G	22 EA	N/A	N/A Operations & Maintenance

## ACM Corrective Action Expense and Response Action Recommendations

Building: 301

WAREHOUSE/AIRPORT HANGER

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	D	363 SF	\$ 435.60
FT	Floor Tile	S	1000 SF	\$ 4000.00
PI	Pipe Insulation	G	30 LF	\$ 0.00
PI	Pipe Insulation	D	764 LF	\$ 4354.80
PI	Pipe Insulation	S	103 LF	\$ 1957.00
FI	Fitting Insulation	G	28 EA	\$ 0.00
FI	Fitting Insulation	D	219 EA	\$ 2102.40
FI	Fitting Insulation	S	14 EA	\$ 448.00
RM	Roofing Materials	G	9555 SF	\$ 0.00
				\$ 13297.80

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 1 of 1  
Date 1/14/93

1. Project No. J 3947.041 2. Project Name JPG

301-16

ZFI

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

20x\*

## CHAIN OF SAMPLE CUSTODY

Page 2 of  
 Date 1/14/93

1. Project No. J3947.04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume I.D. in Liters	7. Remarks	8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
9033	Bulk Asbestos	1/14/93	Bldg 301	SAMPLES INITIALS	JP	00892	JP	JP	00892	JP
9048	/	/	/	JP	00893	JP	JP	JP	00894	JP
9046	/	/	/	JP	00894	JP	JP	JP	00895	JP
9047	/	/	/	JP	00895	JP	JP	JP	00896	JP
9049	/	/	/	JP	00897	JP	JP	JP	00898	JP
9050	/	/	/	JP	00899	JP	JP	JP	00900	JP
9051	/	/	/	JP	00901	JP	JP	JP	00902	JP
9052	/	/	/	JP	00903	JP	JP	JP	00904	JP
9053	/	/	/	JP	00905	JP	JP	JP	00906	JP
8. Relinquished By										
Mr. R. Proctor	1-14-93	Asbestos	Department	Received by and Company Name	1-18-93	Sample Receiving				

SEC Donohue, Inc.

Grand Junction, Colorado 81506

(303) 241-9612

Page 3 of 3  
Date 11/14/23

186

5/20/2013

(303) 241-9612

Page 4 of 7  
Date 1/1/20

AG

Department

sample 21327

805 Stark  
1/20/93

SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 5 of 5

Date 1/14/93

1. Project No. 3947.04 2. Project Name \_\_\_\_\_

## 2. Project Name

200

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. <del>Air Volume</del> In Durs. L.D.	7. Remarks
9072	Bulk Asbestos	1/14/93	301	SAMPLES INITIALS JP 000910
9073	/	/	/	JP 000911
9074	/	/	/	JP 000912
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Jeffrey R. Pank	1-14-93	Asbestos	<del>Stephen</del> DCL	1-18-93 Sample Receiving



# **BUILDING 302**

## **1.0 INTRODUCTION**

Building 302 was inspected for ACM by Jeffrey R. Prescher (Indiana Building Inspector License No. 191923103) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 532 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 530 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 10 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

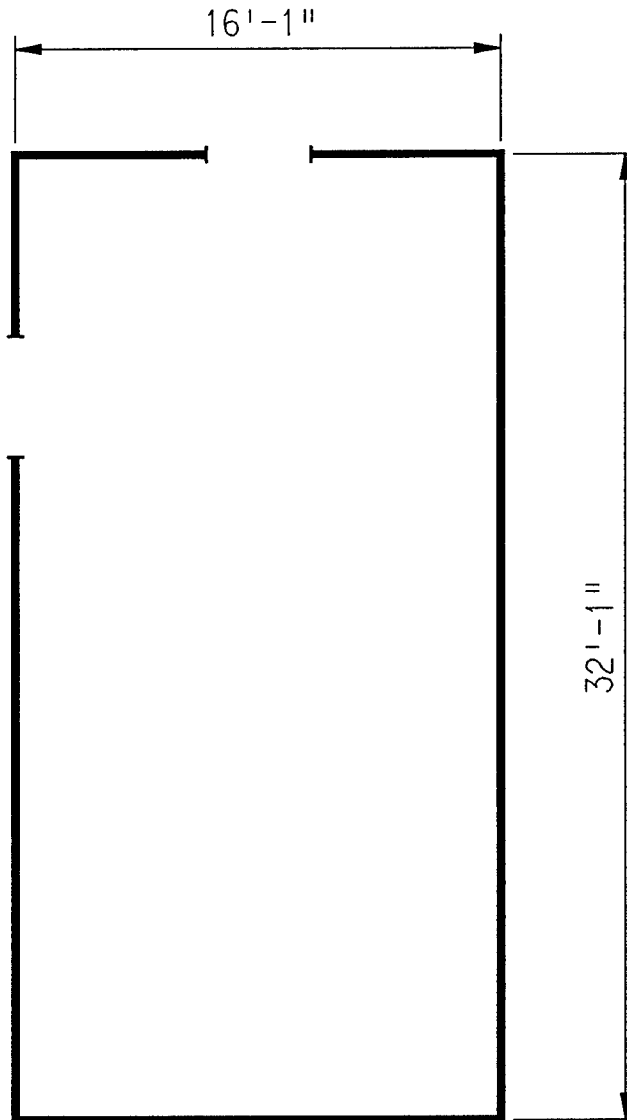
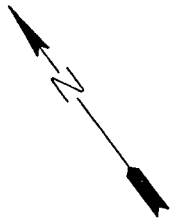
### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS  
ASSUMED ASBESTOS CEMENT BOARD TRANSFORMER INSULATORS

LEGEND		CLIENT: USAEC			
● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)		LOCATION: Jefferson Proving Ground			
■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)		TITLE: BUILDING 302 BUILDING LAYOUT			
▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
7008 -SAMPLE NUMBER (TYPICAL)		J3947.04	DATE: 05-03-93	FILE: 3947AC51.DGN	FIG.
(12) -ROOM NUMBER (TYPICAL)					

# ACM Assessment Rating Summary

Damage Assessment	Building Number: 302	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1	ENTIRE BUILDING	Occupancy: Unoccupied
Physical:	NONE 0	Material Friability: NF 0
Water:	NONE 0	Occupant Accessibility to ACM: LOW 0
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: NONE 0
Pipe, Boiler, or Duct insulation:	NO 0	Air Stream/Plenum: ACM OCCASIONAL 2
Type ACM:	NF, GOOD 0	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	1-30% 1	Occupied Facility: N/A 0
		Unoccupied Facility: NF GOOD 1
	<b>Total 0</b>	<b>Total 0</b>
ACM Assessment Rating: F		

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 302      AIRPORT TRANSFORMER BLDG									
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	<10 SF	<10	G	L	ASSUMED-POSSIBLE ACM INSULATED WIRING AND TRANSITE INSULATORS INSIDE ELECTRICAL BOXES	
EXTERIOR	ROOF	RM-01	NF	530 SF	<10	G	L	ASSUMED TARS AND FELTS	

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector:    PRESCHER, JEFF

Inspection Date:    01/14/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 302

AIRPORT TRANSFORMER BLDG

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	ACM INSULATED WIRING & TRANSITE INSULATORS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PRESCHER, JEFF

Inspection Date: 01/14/93

## ACM Corrective Action Expense and Response Action Recommendations

Building: 302

AIRPORT TRANSFORMER BLDG

Location Code	Code	Description	Friable	Condition	Amount	Unit	Cost Per Expense Estimate	Response Action Recommendation
EXTERIOR	RM-01	TARS AND FELTS	N	G	530 SF	N/A	N/A	Operations & Maintenance
INTERIOR	MM-01	ACM INSULATED WIRING & TRANSIT	N	G	<10 SF	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	530 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 303**

## **1.0 INTRODUCTION**

Building 303 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story metal construction at grade.
- The building is unheated.
- The building area is 45 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a storage shed.



### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 50 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

### **4.0 FUNCTIONAL SPACES**

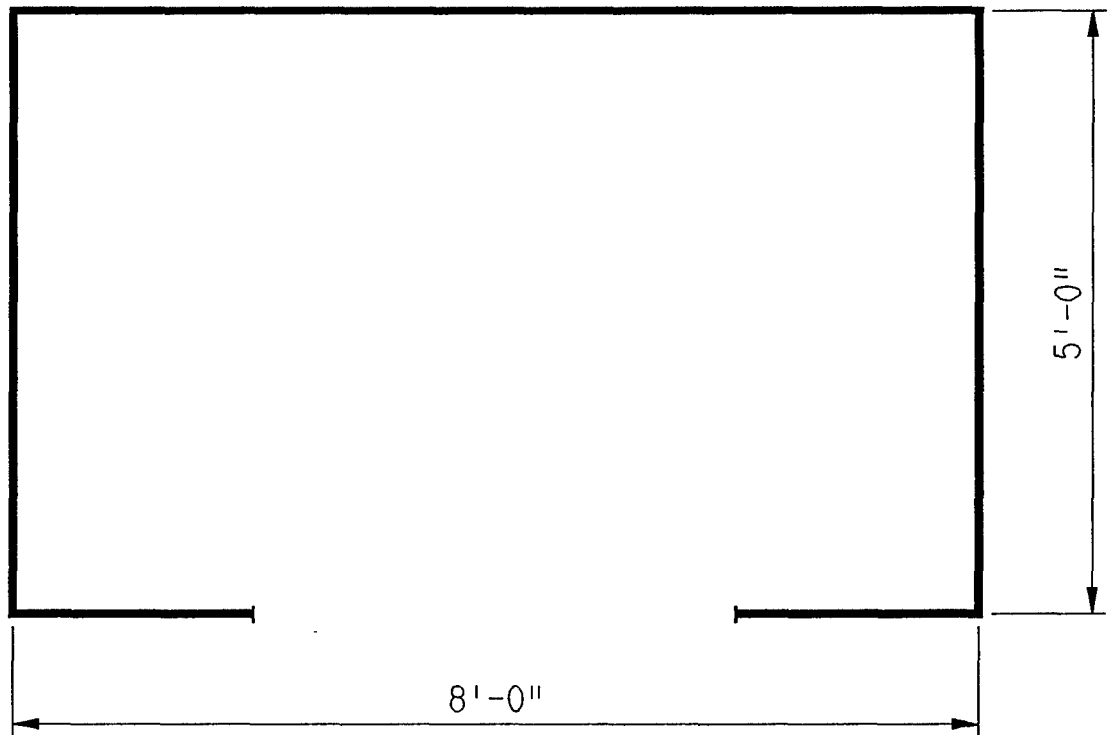
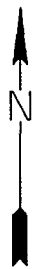
- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

---

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>⑫ -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 303 BUILDING LAYOUT			
PROJECT No.		DRAWN BY: JKH	SCALE: NTS	SHT. OF	
J3947.04		DATE: 05-03-93	FILE: 3947AC52.DGN	FIG.	

### ACM Assessment Rating Summary

Damage  
Assessment

Building Number: 303

Exposure  
Assessment

Functional Space Number: 1 SHED

Occupancy: Unoccupied

Physical:	NONE	0
Water:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0
Pipe, Boiler, or Duct insulation:	NO	0
Type ACM:	NF, GOOD	0
Percent Asbestos:	1-30%	1
Total		0

Material Friability:	NF	0
Occupant Accessibility to ACM:	LOW	0
Activity/Use:	NONE	0
Air Stream/Plenum:	ACM OCCASIONAL	2
Area of surface or damaged ACM:	< 10 LF	0
Occupied Facility:	N/A	0
Unoccupied Facility:	NF GOOD	1
Total		0

ACM Assessment Rating: F

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
EXTERIOR	SHED ROOF	RM-01	NF	50 SF	<10	G	L	ASSUMED-SHINGLES FELTS AND TARS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/10/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 303

STORAGE SHED

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	SHINGLES, TARS, AND FELTS	0.05	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/10/93

# ACM Corrective Action Expense and Response Action Recommendations

Building: 303

STORAGE SHED

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01	SHINGLES, TARS, AND FELTS	N	G	50 SF	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	50 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## **BUILDING 304**

### **1.0 INTRODUCTION**

Building 304 was inspected for ACM by Syd Pincock (Indiana Inspector License No. 197723123) of Rust E&I on January 28, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

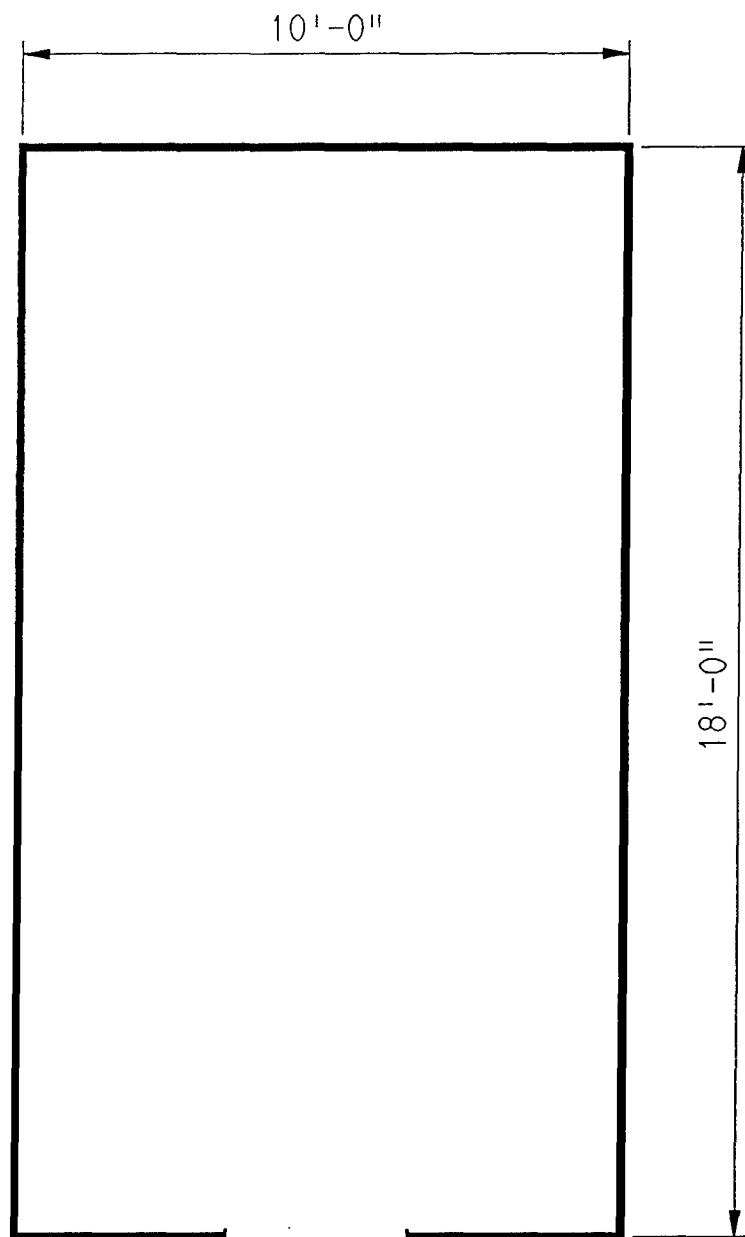
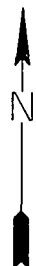
- Metal siding construction.

#### **2.2 Building Use**

At the time of the inspection, the building was being used as a storage shed.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.



NO SUSPECT ACM

LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)

(12) -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

**BUILDING 304  
BUILDING LAYOUT**

PROJECT No.

J3947.04

DRAWN BY:

JKH

SCALE:

NTS

SHT.

OF

DATE: 05-03-93

FILE:

3947AC53.DGN

FIG.



# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 304	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1			STORAGE SHED			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0			
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0			
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1			
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	< 1 %	0	Occupied Facility:	N/A	0			
			Unoccupied Facility:	N/A OR < 1 %	0			

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 304

STORAGE SHED

.....Location..... Code          Use	.....Material..... Code  Touch  Amount	Extent	Assess	Potential	Notes
INT/EXT    STORAGE SHED		<10			NO SUSPECT ACM MATERIALS

Touch: F = Friable  
      NF = Nonfriable

Amount: SF = Square Feet  
         LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
         D = Damaged  
         S = Significantly Damaged

Potential: For Damage  
          L = Low  
          M = Moderate  
          H = High

Inspector: PINCOCK, SYD

Inspection Date: 01/28/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 304

STORAGE SHED

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	STORAGE SHED	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PINCOCK, SYD

Inspection Date: 01/28/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 304

STORAGE SHED

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 305**

## **1.0 INTRODUCTION**

Building 305 was inspected for ACM by Jeffrey R. Prescher (Indiana Building Inspector License No. 191923103) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 305 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story wood frame construction on concrete slab at grade.
- The building is unheated.
- The building area is 780 square feet.
- The building is insulated with fiberglass material.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.).
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

## **2.2 Building Use**

At the time of the inspection, the building was being used as a hazardous waste storage facility and was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 950 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

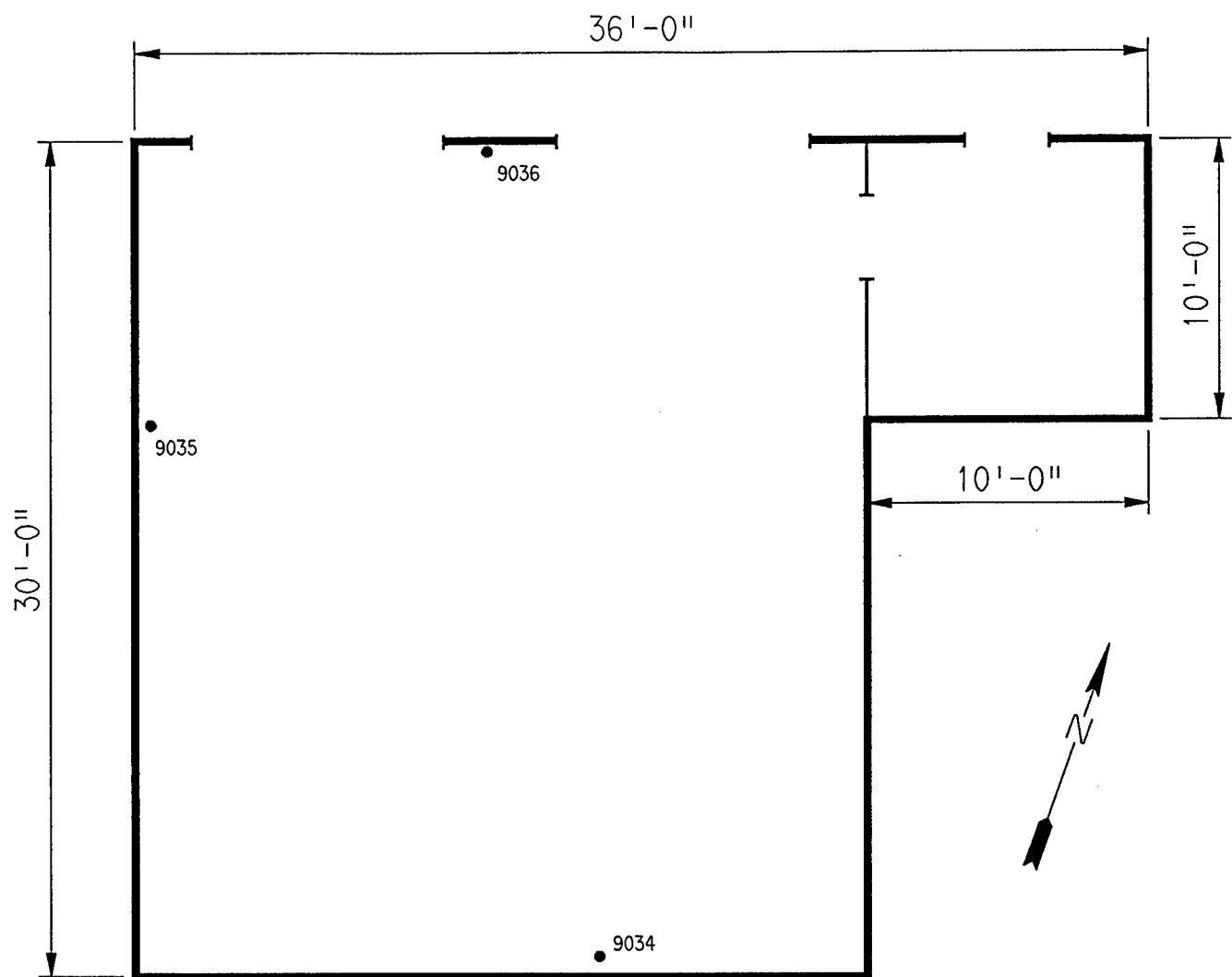
## **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

## **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable. The wallboard inside the building was sampled and was determined to be non-ACM.



# ASSUMED ASBESTOS ROOFING COMPONENTS

<b>LEGEND</b> <ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		<b>CLIENT:</b> USAEC	
7008 -SAMPLE NUMBER (TYPICAL)		<b>LOCATION:</b> Jefferson Proving Ground	
(12) -ROOM NUMBER (TYPICAL)		<b>TITLE:</b> BUILDING 305 SAMPLE LOCATIONS	
<b>PROJECT No.</b> J3947.04		<b>DRAWN BY:</b> JKH	<b>SCALE:</b> NTS
		<b>DATE:</b> 05-03-93	<b>FILE:</b> 3947AC54.DGN
		<b>SHT.</b> OF	<b>FIG.</b>

### ACM Assessment Rating Summary

Damage Assessment		Building Number: 305		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy: Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		Total	0	Total	0
ACM Assessment Rating: F					



# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	HAZ WASTE WAREHOUSE	WB-01	NF	1650 SF	<10	G	L	9034,9035,9036	
EXTERIOR	HAZ WASTE WAREHOUSE ROOF	RM-01	NF	9500 SF	<10	G	L	ASSUMED-SHINGLE S, TARS, AND FELTS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PRESCHER, JEFF

Inspection Date: 01/14/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 305			HAZ WASTE WAREHOUSE						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		
WB-01	WALLBOARD	SHEETROCK WALLS AND CEILINGS	0.68	I	M	N	N	9034	INTERIOR
								9035	INTERIOR
								9036	INTERIOR

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PRESCHER, JEFF

Inspection Date: 01/14/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
305	9034	017	AMOS	LT	1	ZFE
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9035	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	9036	019	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY5=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 305			HAZ WASTE WAREHOUSE				
Location .....			Material.....		Cost Per	Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR RM-01		SHINGLES, FELTS, AND TARS	N	G	9500 SF	N/A	N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	9500 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 6 of 6

Date 1/14/93

2. Project Name 286

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks
9034	Bulk Aerosols	1/14/93	Bude 305	SPRINGERS INITIALS
9035	/	/	/	JP 00988
9036	/	/	/	JP 00989
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Jeffrey R. Pender	1-14-93	Ashcroft	Superior Weld DCL	1-18-93
				Sample Received

# **BUILDING 307**

## **1.0 INTRODUCTION**

Building 307 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on February 3, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 222 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house and was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- Less than 2 cubic feet of cement board ("Transite) electric panel transformer insulators and suspect wiring insulation. These materials were inaccessible for inspection, but were assumed to be in satisfactory condition.

#### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### 5.0 ADDITIONAL COMMENTS

ACM was inaccessible for inspection. This ACM is typically nonfriable and not considered to be a significant environmental concern.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>(12) -ROOM NUMBER (TYPICAL)</p>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 307			
PROJECT No.		DRAWN BY: JKH	SCALE: NTS	SHT. OF	
J3947.04		DATE: 06-23-93	FILE: 3947AEI4.DGN	FIG.	



### ACM Assessment Rating Summary

Damage Assessment		Building Number: 307		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy: Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	NONE	0
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<b>Total</b>	<b>0</b>	<b>Total</b>	<b>0</b>
ACM Assessment Rating: F					

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 307      SAFE HOUSE									
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	2    SF	<10	G	L	ACM MAY BE PRESENT AS WIRING INSULATION AS WELL AS TRANSITE INSULATORS-NO OTHER SUSPECT ACM MATERIALS	

Touch: F =Friable NF=Nonfriable	Extent: Percent of Damage	Potential: For Damage L=Low M=Moderate H=High
Amount: SF=Square Feet LF=Linear Feet	Assess: G=Good D=Damaged S=Significantly Damaged	
Inspector: HENDRICKSON, KAREN	Inspection Date: 02/03/93	

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 307

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	WIRING INSULATION AND OR TRANSITE INSULATORS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 02/03/93

# ACM Corrective Action Expense and Response Action Recommendations

Building: 307

SAFE HOUSE

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
INTERIOR	MM-01	WIRING INSULATION AND OR TRANS	N	G	2 SF	N/A	N/A Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
MM	Misc. Materials	G	2 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 309**

## **1.0 INTRODUCTION**

Building 309 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 106 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 150 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

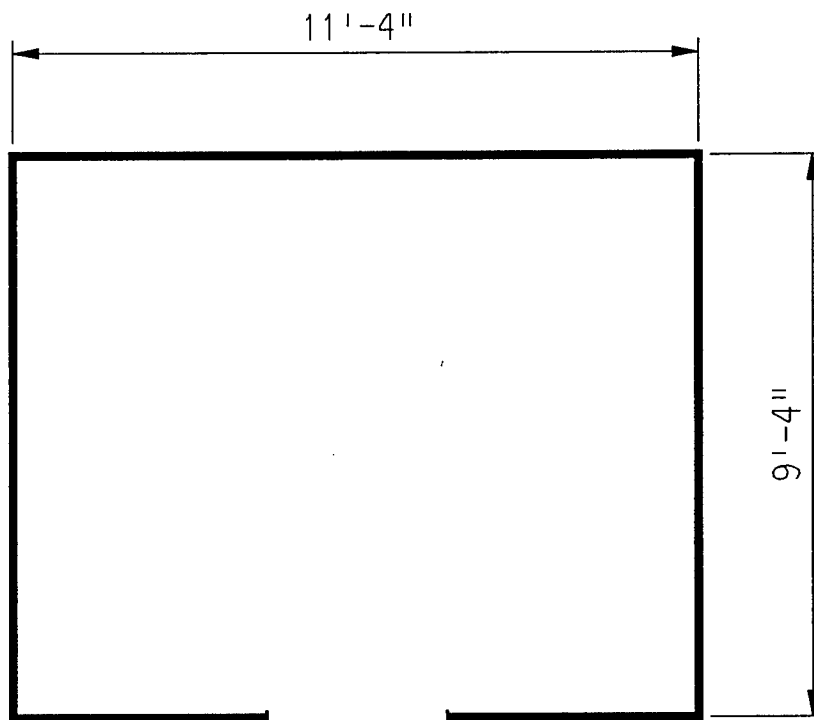
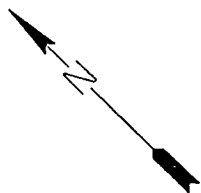
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS  
ASSUMED ASBESTOS ELECTRICAL PANEL INSULATORS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul>	7008	-SAMPLE NUMBER (TYPICAL)			
	(12)	-ROOM NUMBER (TYPICAL)			
	PROJECT No. J3947.04				
	DRAWN BY: JKH				
		SCALE: NTS		SHT.	OF
		DATE: 05-03-93		FILE: 3947AC56.DGN	FIG.
		TITLE: BUILDING 309 BUILDING LAYOUT			
		LOCATION: Jefferson Proving Ground			

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 309		Exposure Assessment	
Functional Space Number:	1	ENTIRE BUILDING		Occupancy:	Unoccupied	
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0	
			Unoccupied Facility:	NF GOOD	1	
		<b>Total</b>	<b>0</b>			
ACM Assessment Rating:		F		<b>Total</b>	<b>0</b>	



# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 309		TRANSFORMER HOUSE							
Location.....		Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	2 SF	<10	G	L	POSSIBLE TRANSITE TRANSFORMER INSULATORS INSIDE ELECTRICAL BOXES	
EXTERIOR	ROOF	RM-01	NF	110 SF	<10	G	L	SHINGLES FELTS AND TARS	

Touch: F =Friable  
NF=Nonfriable  
Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage  
Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 309	TRANSFORMER HOUSE							
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)	
MM-01	ELECTRICAL PANELS	TRANSITE INSULATORS	0.50	I	M	N	ASSUMED			
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED			

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 309

TRANSFORMER HOUSE

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	110 SF	N/A	N/A Operations & Maintenance
INTERIOR	MM-01	TRANSITE INSULATORS	N	G	2 SF	N/A	N/A Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	110 SF	\$	0.00
MM	Misc. Materials	G	2 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 310**

## **1.0 INTRODUCTION**

Building 310 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 310 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Brick and concrete frame construction over recessed poured concrete basement, containing 1,470 square feet.
- The building is heated by self-generated radiant steam from the boilers and an insulated pipe supply and return system.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with roofing asphalt-based roofing tars and felts.

## 2.2 Building Use

At the time of inspection, the building was not being used. Previously, this building was a boiler plant facility.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 250 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally fair condition with evidence of physical damage or material deterioration in the boiler room (Room 4).
- 60 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally fair condition with evidence of physical damage or material deterioration in the boiler room (Room 4).
- 3 linear feet of black material on boiler doors. This material was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 3 linear feet of woven gasket material. This materials was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 1,480 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition.

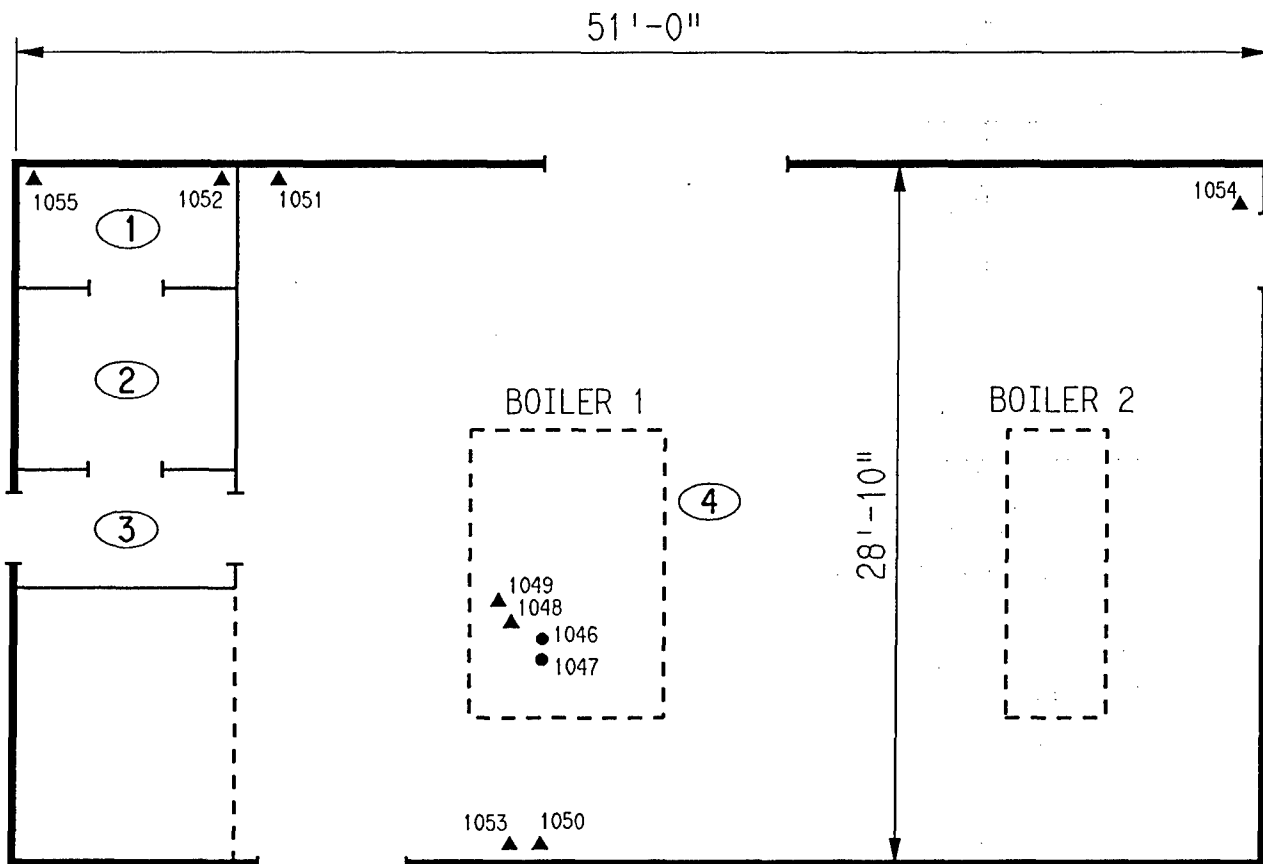
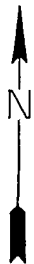
## 4.0 FUNCTIONAL SPACES

- #1 Rooms 1,2,3: ACM Assessment Rating C, there is damaged friable ACM in an unoccupied area.
- #2 Room 4: ACM Assessment Rating C, there is damaged friable ACM in an unoccupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

## 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be fair to good as noted above. ACM pipe insulations were observed to be extremely friable. Woven gasket materials were also friable. The remaining ACM was observed to be nonfriable.



SUSPECTED ASBESTOS ROOFING COMPONENTS

LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- (12) -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 310  
SAMPLE LOCATIONS

PROJECT No.

J3947.04

DRAWN BY:

JKH

SCALE:

NTS

SHT.

OF

DATE:

05-03-93

FILE:

3947AC57.DGN

FIG.

# ACM Assessment Rating Summary

Damage Assessment	Building Number: 310	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1	ROOMS 1,2,3 - OFFICE AREA		Occupancy: Unoccupied	
Physical:	MODERATE	3	Material Friability:	MODERATE 2
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE 0
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	< 10 LF 0
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A 0
			Unoccupied Facility:	F DAMAGED 5
	<b>Total</b>	<b>11</b>	<b>Total</b>	<b>9</b>
ACM Assessment Rating: C				

Functional Space Number: 2	RM 4 - MECHANICAL ROOM		Occupancy: Unoccupied	
Physical:	MODERATE	3	Material Friability:	HIGH 3
Water:	MAJOR	2	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE 0
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	TSI NOT	1	Area of surface or damaged ACM:	10-100 LF 1
Percent Asbestos:	> 51%	3	Occupied Facility:	N/A 0
			Unoccupied Facility:	F DAMAGED 5
	<b>Total</b>	<b>12</b>	<b>Total</b>	<b>11</b>
ACM Assessment Rating: C				



# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 310		HEATING PLANT							
Location	Material								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	RESTROOM	PI-01	F	30 LF	<10	G	H		
	RESTROOM	FI-01	F	5 EA	<10	G	H		
RM-02	OFFICE	-			<10			NO SUSPECT ACM MATERIALS	
RM-03	ENTRY	-			<10			NO SUSPECT ACM MATERIALS	
RM-04	MECHANICAL ROOM	PI-01	F	220 LF	<25	D	H		
	MECHANICAL ROOM	FI-01	F	55 EA	<25	D	H		
	MECHANICAL ROOM	GA-01	NF	3 LF	<10	G	M	GASKET MATERIALS ON BOILERS	
	MECHANICAL ROOM	GA-02	F	3 LF	<10	G	M	GASKET MATERIALS BEHIND METAL PLATES	
	MECHANICAL ROOM	BI-01	F	3 LF	<10	G	M		
	MECHANICAL ROOM	BI-02	F	? LF	<10	G	M	SUSPECT LININGS IN BOTH BOILERS AMOUNT NOT ESTIMATED	
EXTERIOR	ROOF	RM-01	NF	1480 SF	<10	G	L	BUILT UP ROOFING MATERIALS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

# *Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 310	HEATING PLANT						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
BI-01	BOILER INSULATION	GRAY POWDERY AROUND PIPES ON BOILER	1.00	I	T	Y	N	1048	RM-04
BI-02		BROWN FIBEROUS LOOSE	1.00	I	T	Y	N	1049	RM-04
FI-01	FITTING INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1050 1051 1052	RM-04 RM-04 RM-01
GA-01	GASKET MATERIAL	BLACK MATERIAL ON BOILER DOORS	0.50	I	M	N	Y	1046	RM-04
GA-02		WOVEN MATERIAL BEHIND STEEL PLATES	0.50	I	M	Y	Y	1047	RM-04
PI-01	PIPE INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1053 1054 1055	RM-04 RM-04 RM-01
RM-01	ROOFING MATERIALS	TARS, AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
310	1046	020	AMOS	LT	1	ZFD
			ANPHO	LT	1	
			CHRY		20	
			CROCO	LT	1	
			TREACT	LT	1	
	1047	021	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	1048	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1049	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1050	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	1051	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		75	
			CROCO	LT	1	
			TREACT	LT	1	
	1052	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1053	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	1054	028	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	1055	019	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 310

HEATING PLANT

Location .....		Material.....		Cost Per Expense		Response Action	
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01	TARS, AND FELTS	N	G	1480 SF	N/A	Operations & Maintenance
RM-01	PI-01	WHITE CHALKY	Y	G	30 LF	N/A	Operations & Maintenance
	FI-01	WHITE CHALKY	Y	G	5 EA	N/A	Operations & Maintenance
RM-04	PI-01	WHITE CHALKY	Y	D	220 LF	19.00 LF	Repairs Followed by O&M
	FI-01	WHITE CHALKY	Y	D	55 EA	32.00 EA	Repairs Followed by O&M
	GA-01	BLACK MATERIAL ON BOILER DOORS	N	G	3 LF	N/A	Operations & Maintenance
	GA-02	WOVEN MATERIAL BEHIND STEEL PL	Y	G	3 LF	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	G	30 LF	\$ 0.00
PI	Pipe Insulation	D	220 LF	\$ 1254.00
FI	Fitting Insulation	G	5 EA	\$ 0.00
FI	Fitting Insulation	D	55 EA	\$ 528.00
GA	Gasket Materials	G	6 LF	\$ 0.00
RM	Roofing Materials	G	1480 SF	\$ 0.00
				\$ 1782.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 1 of 2  
Date 1/14/93

1. Project No. J3947,04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters.	7. Remarks
1046		1/14/93	Bldg. 310	TB <del>AN 0007780</del>
1047				TB <del>00978</del>
1048				TB <del>00979</del>
1049				TB <del>00980</del>
1050				TB <del>00981</del>
1051				TB <del>00982</del>
1052				TB <del>00983</del>
1053				TB <del>00984</del>
1054				TB <del>00985</del>
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Wilb McQueen	1/14/93	Asbestos Dept	<del>Seaford</del> DCL	1-18-93
				Sample Receiving

SEC Donohue, Inc.

Grand Junction, Colorado 81506

(303) 241-9612

Page 2 of 2  
Date 1/14/93

U  
a  
h

sample  
Receiving

# **BUILDING 311**

## **1.0 INTRODUCTION**

Building 311 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 311 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Brick and concrete construction on concrete slab at grade, containing 3,513 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from an external location.
- The building is insulated with blown-in cellulose and foam rubber in the attic.
- The building interior is finished with vinyl floor tiles.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

## **2.2 Building Use**

At the time of inspection, the building was being used as the radar maintenance station and storage facility and was occupied by less than 10 people per day.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 120 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in good condition.
- 40 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in good condition.
- 100 square feet of 12" x 12" black vinyl floor tiles. These tiles were observed to be in good condition.
- 100 square feet of 12" x 12" brown vinyl floor tiles. These tiles were observed to be in good condition.
- 330 square feet of 9" x 9" brown speckled vinyl floor tiles. These tiles were observed to be in good condition.
- Less than 2 square feet of HVAC expansion/ventilation joint. This joint was observed to be in good condition.
- 3,515 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

## **4.0 FUNCTIONAL SPACES**

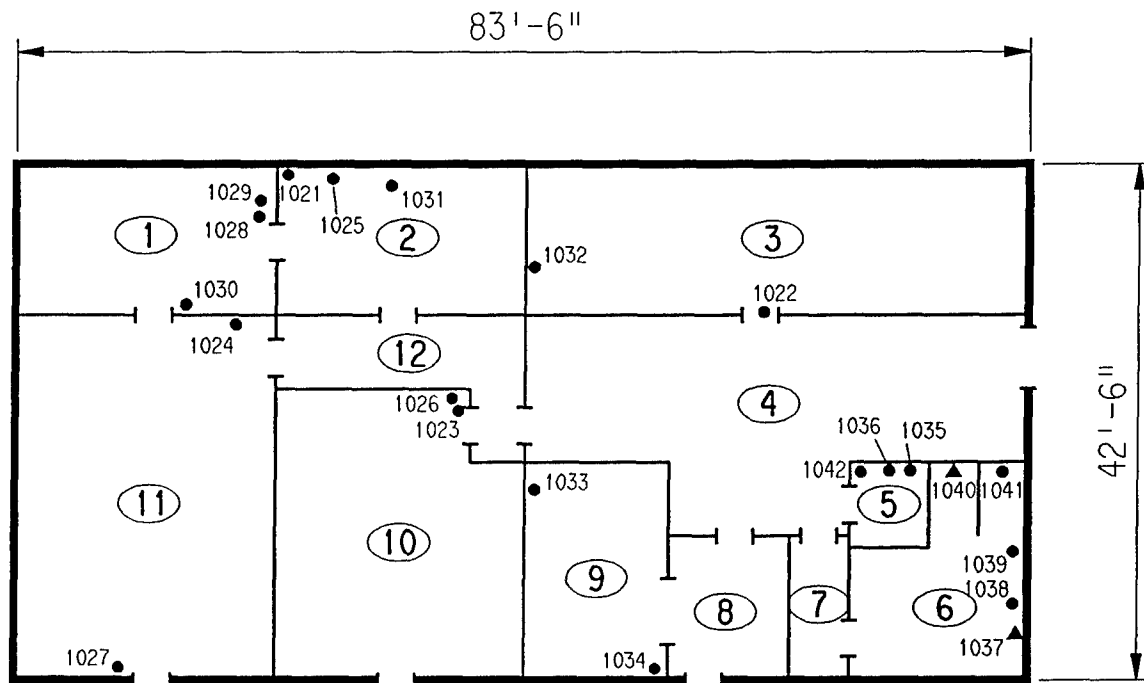
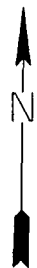
- #1 Entire Structure: ACM Assessment Rating D, the friable ACM is in good condition in the occupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of D calls for repair and initiation of a special O&M program. Damaged areas should be repaired, where "repair" means returning damaged ACM to an undamaged condition to contain fiber release.



## **5.0 ADDITIONAL COMMENTS**

The condition of ACM present was observed to be good. Pipe insulations were observed to be friable, while other ACMs were nonfriable. The blown-in insulation in the attic was sampled and determined not to contain asbestos.



ATTIC - ROOM (13)  
SAMPLE Nos. 1018, 1019, 1020

ASSUMED ASBESTOS ROOFING COMPONENTS  
ASSUMED ASBESTOS EXPANSION JOINT

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 311 SAMPLE LOCATIONS			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
		J3947.04	DATE: 05-04-93	FILE: 3947AC58.DGN	FIG.

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 311		Exposure Assessment	
Functional Space Number: 1 ENTIRE STRUCTURE			Occupancy: Occupied			
Physical:	MINIMAL	1	Material Friability:	LOW	1	
Water:	NONE	0	Occupant Accessibility to ACM:	MODERATE	1	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	NONE	0	
Type ACM:	TSI ACCESSIBLE	2	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	> 51%	3	Occupied Facility:	< 9	1	
			Unoccupied Facility:	N/A OR < 1%	0	
		Total			Total	
ACM Assessment Rating: D		9			4	

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 311				ELECTRONIC REPAIR & TEST					
Location		Material							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	SUPPLY	FT-02	NF	100	SF	<10	G	M	PAINTED
	SUPPLY	CT-01	F	200	SF	<10	G	M	
	SUPPLY	WB-01	NF	200	SF	<10	G	M	
	SUPPLY	FT-03	NF	100	SF	<10	G	M	
RM-02	OFFICE	FT-01	NF	200	SF	<10	G	M	PAINTED
RM-03	EQUIPMENT ROOM	FT-01	NF	480	SF	<10	G	M	
	EQUIPMENT ROOM	CT-01	F	480	SF	<10	G	M	
	EQUIPMENT ROOM	WB-01	NF	750	SF	<10	G	M	
RM-05	WOMENS RESTROOM	WB-01	NF	500	SF	<10	G	M	
	WOMENS RESTROOM	FT-04	NF	30	SF	<10	G	M	
	WOMENS RESTROOM	PI-01	F	40	LF	<10	G	M	
	WOMENS RESTROOM	FI-01	F	15	EA	<10	G	M	
RM-06	MENS RESTROOM	FI-01	F	25	EA	<10	G	M	PI, FI THROUGHOUT THE BUILDING NOT DAMAGED PI THROUGHOUT BUILDING NOT DAMAGED
	MENS RESTROOM	PI-01	F	80	LF	<10	G	M	
RM-07	HALLWAY	WB-01	NF	3100	SF	<10	G	M	PAINTED
RM-08	ENTRANCE	WB-01	NF	700	SF	<10	G	M	PAINTED
RM-09	BREAK ROOM	FT-04	NF	300	SF	<10	G	M	
RM-10	LAB	FT-01	NF	460	SF	<10	G	M	
	LAB	WB-01	NF	900	SF	<10	G	M	
RM-11	WORKSHOP	WB-01	NF	3000	SF	<10	G	M	
	WORKSHOP	FT-01	NF	500	SF	<10	G	M	
INTERIOR	ELECTRINICS REPAIR ROOMS	MA-01	NF	3513	SF	<10	G	L	MASTIC USED TO GLUE ALL AREAS OF FLOOR TILE
RM-12	HALL	-				<10			NO SUSPECT ACM MATERIALS
RM-13	ATTIC	MM-01	F	1200	SF	<10	G	L	ASSUMED- UNIT OPERATIONAL
RM-04	HVAC UNIT EXPANSION JOINT	MM-02	NF	<2	SF	<10	G	L	
EXTERIOR	ROOF	RM-01	NF	3515	SF	<10	G	L	BUILT UP ROOFING MATERIALS
RM-11	WORKSHOP	MA-01	F			<10			

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

		Building Number: 311	ELECTRONIC REPAIR & TEST						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CT-01	CEILING TILE	2' X 2' WHITE W/WORM TRACKS	0.50	I	M	Y	N	1030	RM-01
								1031	RM-02
								1032	RM-03
FI-01	FITTING INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1037	RM-06
								1038	RM-06
								1039	RM-06
FT-01	FLOOR TILE	12" X 12" CREAM COLORED	0.25	I	M	N	N	1021	RM-02
								1022	RM-03
								1023	RM-09
FT-02		12" X 12" BLACK COLORED	0.25	I	M	N	Y	1028	RM-01
FT-03		12" X 12" BROWN COLORED	0.25	I	M	N	Y	1029	RM-01
FT-04		9" X 9" BROWN SPECKLED	0.25	I	M	N	Y	1033	RM-09
								1034	RM-09
								1035	RM-05
								1036	RM-05
MA-01	MASTIC	BROWN UNDER FLOORBOARDS AND TILE	0.25	I	M	N	N	1027	RM-11
MM-01	INSULATION	FOAM/CELLULOSE BLOWN IN ATTIC	4.00	I	M	Y	N	1018	RM-13
								1019	RM-13
								1020	RM-13
MM-02	HVAC JOINT	EXPANSION/VIBRATION JOINT	0.13	I	M	N	ASSUMED		
PI-01	PIPE INSULATION	WHITE CHALKY	1.00	I	T	Y	Y	1040	RM-06
								1041	RM-06
								1042	RM-05
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		
WB-01	WALL BOARD	PAINTED WHITE CHALKY SHEETS	0.67	I	M	N	N	1024	RM-11
								1025	RM-02
								1026	RM-10

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP=No Suspected Asbestos Containing Material

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
311	1018	017	AMOS	LT	1	ZFC
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1019	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1020	019	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1021	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1022	021	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1023	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1024	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1025	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1026	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1027	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
311	1028	009	AMOS	LT	1	ZFC
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	1029	010	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	1030	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1031	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1032	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1033	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	1034	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	1035	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		10	
			CROCO	LT	1	
			TREACT	LT	1	
	1036	001	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	1037	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
311	1037	002	TREACT	LT	1	ZFC
	1038	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	1039	004	AMOS		10	
			ANPHO	LT	1	
			CHRY		30	
			CROCO	LT	1	
			TREACT	LT	1	
	1040	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		60	
			CROCO	LT	1	
			TREACT	LT	1	
	1041	006	AMOS		50	
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	1042	007	AMOS		10	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



## ACM Corrective Action Expense and Response Action Recommendations

Building: 311

ELECTRONIC REPAIR &amp; TEST

Location .....		Material .....		Cost Per		Expense	Response Action
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate Recommendation
EXTERIOR	RM-01	TARS AND FELTS	N	G	3515 SF	N/A	N/A Operations & Maintenance
RM-01	FT-02	12" X 12" BLACK COLORED	N	G	100 SF	N/A	N/A Operations & Maintenance
	FT-03	12" X 12" BROWN COLORED	N	G	100 SF	N/A	N/A Operations & Maintenance
RM-04	MM-02	EXPANSION/VIBRATION JOINT	N	G	<2 SF	N/A	N/A Operations & Maintenance
RM-05	FT-04	9" X 9" BROWN SPECKLED	N	G	30 SF	N/A	N/A Operations & Maintenance
	PI-01	WHITE CHALKY	Y	G	40 LF	N/A	N/A Operations & Maintenance
	FI-01	WHITE CHALKY	Y	G	15 EA	N/A	N/A Operations & Maintenance
RM-06	FI-01	WHITE CHALKY	Y	G	25 EA	N/A	N/A Operations & Maintenance
	PI-01	WHITE CHALKY	Y	G	80 LF	N/A	N/A Operations & Maintenance
RM-09	FT-04	9" X 9" BROWN SPECKLED	N	G	300 SF	N/A	N/A Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	G	530 SF	\$ 0.00
PI	Pipe Insulation	G	120 LF	\$ 0.00
FI	Fitting Insulation	G	40 EA	\$ 0.00
RM	Roofing Materials	G	3515 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

Page / of 3  
Date 1/14/93

596

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In-Liters <sup>SITE</sup> E, D.	7. Remarks
1018		1/14/93	Bldg. 311	Sample Initials TB <del>OK 00999</del>
1019				TB <del>01000</del>
1020				TB <del>01001</del>
1021				TB <del>01002</del>
1022				TB <del>01003</del>
1023				TB <del>01004</del>
1024				TB <del>01005</del>
1025				TB <del>01006</del>
1026				TB <del>01007</del>
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Mr. M.C. Brown	1/14/93	Asbestos	<del>Stephen D. DCL</del>	1-18-93
				Sample. Receiving

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 2 of 3  
 Date 1/14/93

1. Project No. J3947.04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In-Liters <sup>SITE</sup> I.D.	7. Remarks Sampler Initials
1027		1/14/93	Bldg. 311	TB <del>01008</del> 01008
1028				TB <del>01009</del>
1029				TB <del>01010</del>
1030				TB <del>01011</del>
1031				TB <del>01012</del>
1032				TB <del>01013</del>
1033				TB <del>01014</del>
1034				TB <del>01015</del>
1035			✓	TB <del>01016</del>
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
M. McHesren	1/14/93	Asbestos	Stephaneau PCL	H18-93 Sample Receiving

SUB 1/20/93

826-23M

ZFC

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 3 of 3  
 Date 1/14/93

1. Project No. J3947,04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <sup>SITE</sup> <sub>LAB.</sub>	7. Remarks
1036		1/14/93	Bldg. 311	Sample Initials TB AN 010178
1037				TB 01018
1038				TB 01019
1039				TB 01020
1040				TB 01021
1041				TB 01022
1042				TB 01023
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
M. McJannet	1/14/93	Asbestos	Asbestos Recd DCL 5181/20/93	1-18-93
			Signature: [Signature]	Sample Receiving

# **BUILDING 312**

## **1.0 INTRODUCTION**

Building 312 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 106 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 150 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

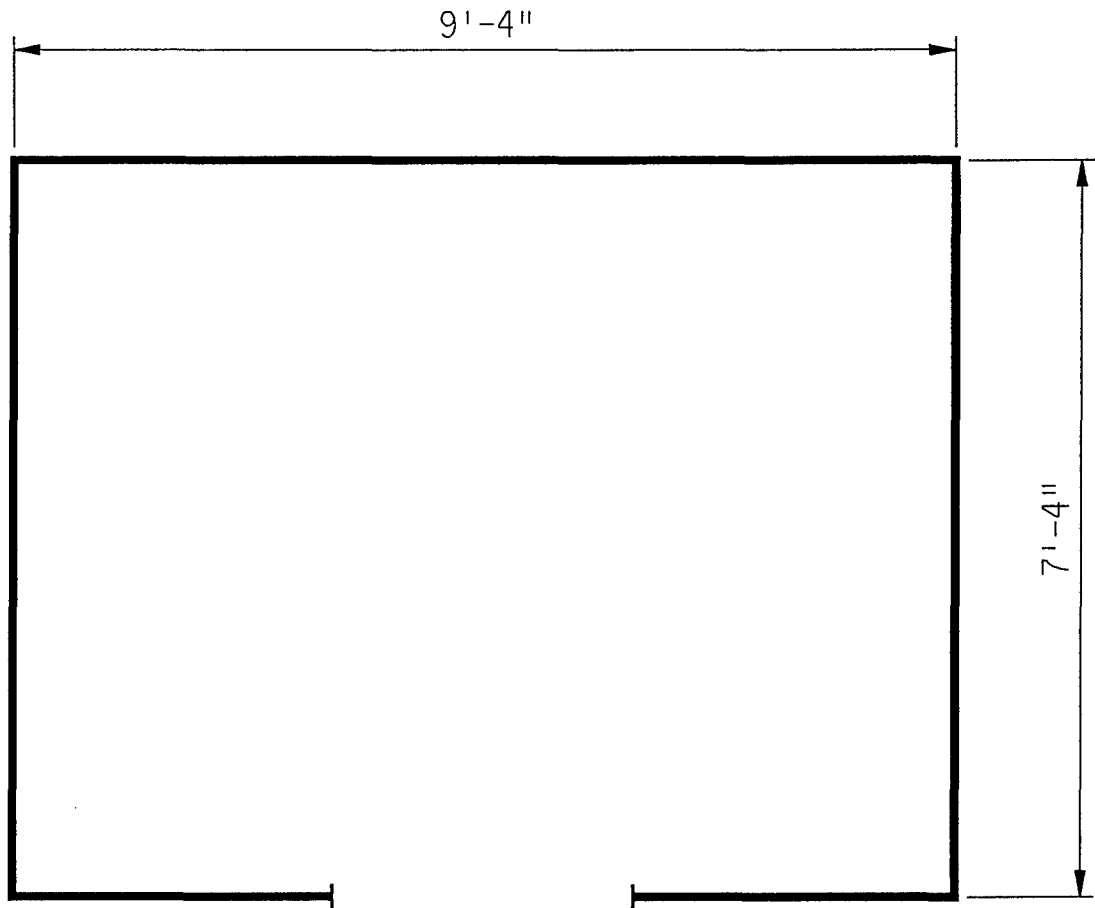
### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS  
ASSUMED ASBESTOS ELECTRICAL PANEL INSULATORS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul>	7008	LOCATION: Jefferson Proving Ground			
	(12)	TITLE: BUILDING 312 BUILDING LAYOUT			
		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
		J3947.04	DATE: 05-04-93	FILE: 3947AC59.DGN	FIG.

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 312</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy:</b>	<b>Unoccupied</b>
Physical:	NONE	0	Material Friability:	NF 0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW 0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE 0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL 2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF 0
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A 0
			Unoccupied Facility:	NF GOOD 1
		<b>Total 0</b>		<b>Total 0</b>
<b>ACM Assessment Rating:</b>	<b>F</b>			



# Inspector's Room-by-Room Inventory Suspect ACM

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	TRANSFORMER HOUSING	RM-01	NF	70 SF	<10	G	L		

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 312

TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIAL	SHINGLES,TARS, AND FELTS	0.75	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 312

TRANSFORMER HOUSE

Location .....	Material.....	Cost Per	Expense	Response Action
Code      Code    Description	Friable Condition Amount	Unit	Estimate	Recommendation
RM-01    RM-01	SHINGLES,TARS, AND FELTS	N      G      70 SF	N/A      N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	70 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 313**

## **1.0 INTRODUCTION**

Building 313 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on January 15, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 313 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Wood frame construction at grade with a crawl space under the first floor, containing 8,100 square feet.
- The building is heated by radiant steam via an insulated pipe supply and return system originating from the building's boiler.
- The building is insulated with fiberglass batts in the attic, and similar material is assumed to be located within the exterior walls.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.) walls and ceilings; cement board ("Transite") panels; various styles of acoustical ceiling panels/tiles; and carpet, vinyl tile, or bare wood floors.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with cement board ("Transite") siding and roofing shingles over a tar paper liner.

## 2.2 Building Use

At the time of inspection, the building was being used as an office building.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 50 square feet of pipe insulation debris in the attic.
- 125 linear feet of corrugated cardboard pipe insulation ("aircell"), located in the crawl space only. This insulation was observed to be in poor condition with evidence of significant physical damage or material deterioration in the crawl space.
- 12 areas of packed "fitting" insulation on pipes otherwise insulated with fiberglass material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 400 square feet of 9" x 9" gray vinyl floor tiles. These tiles were observed to be in good condition.
- 56 square feet of 9" x 9" marble green vinyl floor tiles. These tiles were observed to be in good condition.
- 1,000 square feet of cement board ("Transite") panels. This siding was observed to be in generally good condition with minor areas of isolated damage.
- 5,000 square feet of cement board ("Transite") exterior wall siding. This siding was observed to be in generally good condition with minor areas of isolated damage.
- 12,500 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

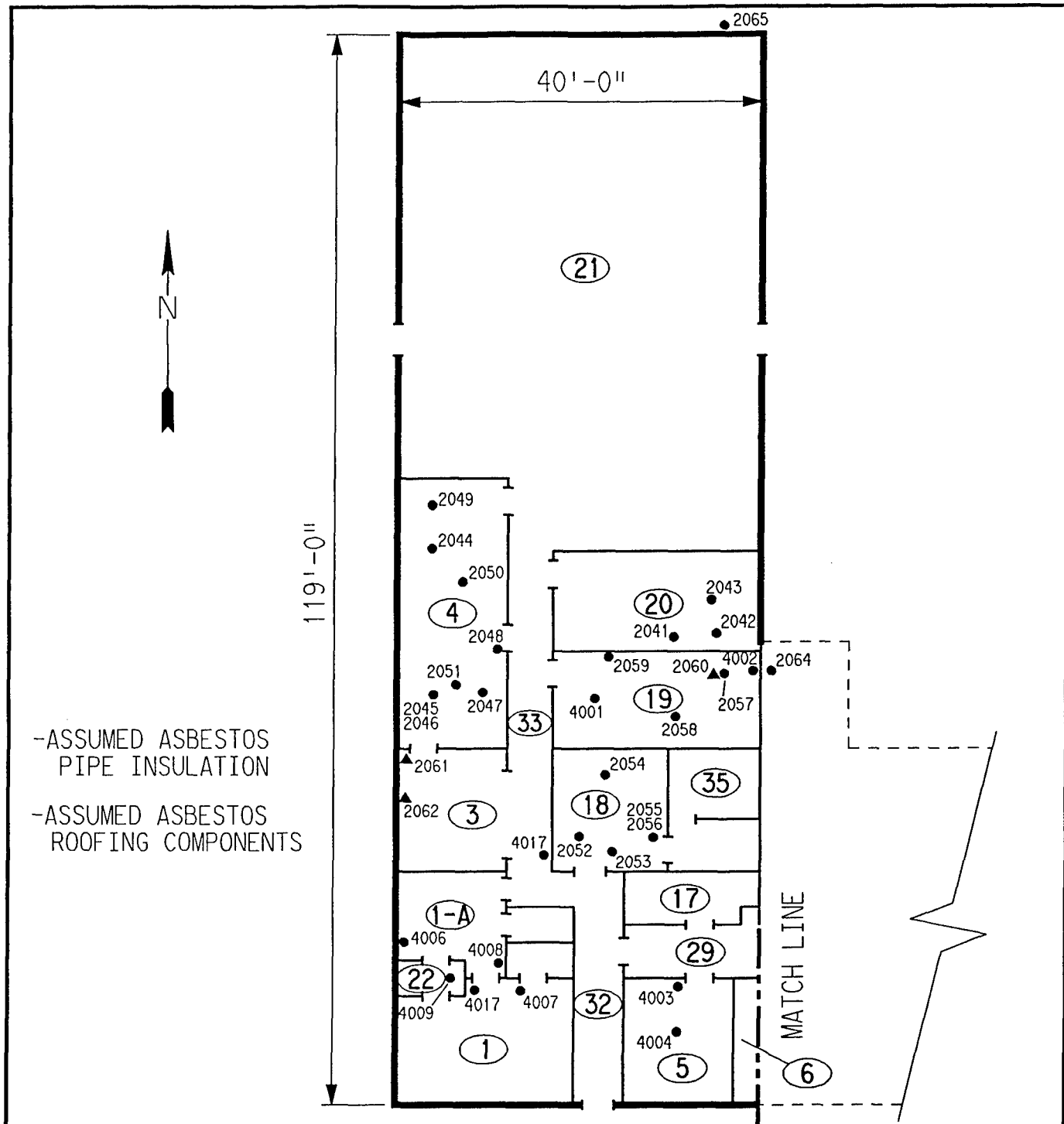
## 4.0 FUNCTIONAL SPACES

- #1 Occupied Offices, Rooms 1, 1A, 3, 5, 6, 7, 15, 16, 18, and 19: **ACM Assessment Rating E**, the only friable ACM is in good condition in this occupied area.
- #2 Vacant Areas, Rooms 4, 8 through 14, 17, 20 through 33, 35, and 36: **ACM Assessment Rating D**, there is no damaged friable ACM in this unoccupied area.
- #3 Boiler Room, Attic, and Crawl Space: **ACM Assessment Rating C**, there is significantly damaged friable ACM in an unoccupied area.

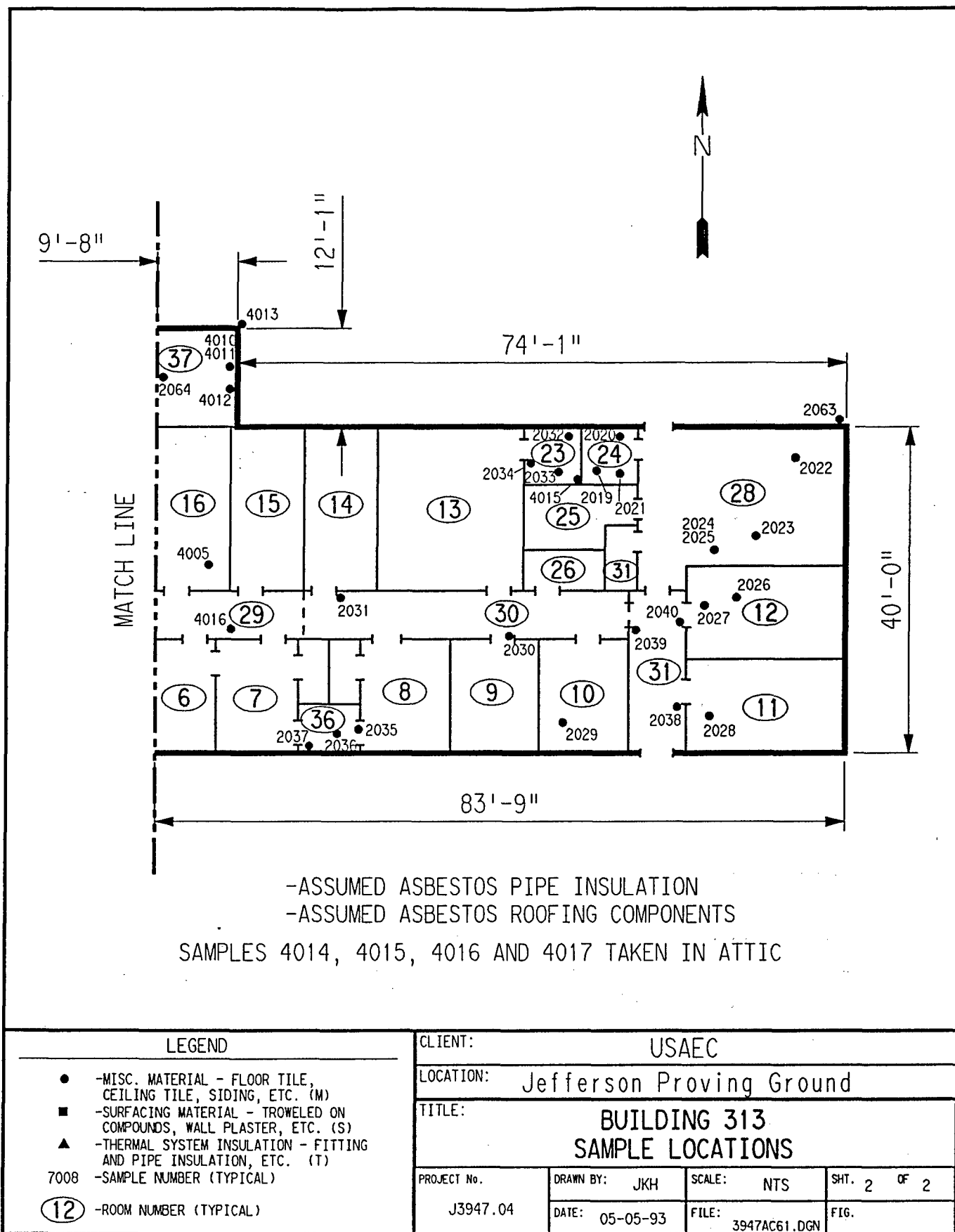
The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of D calls for repair and initiation of a special O&M program. Damaged areas should be repaired, where "repair" means returning damaged ACM to an undamaged condition to contain fiber release. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility.

## **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. Pipe insulations were observed to be friable, while other ACMs were nonfriable. ACM debris in the attic, and ACM pipe insulation should be removed prior to performance of maintenance work in these areas.



LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 313 SAMPLE LOCATIONS			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. 1 OF 2
		J3947.04	DATE: 05-05-93	FILE: 3947AC60.DGN	FIG.





### ACM Assessment Rating Summary

Damage Assessment			Building Number: 313		Exposure Assessment	
<hr/>						
Functional Space Number: 1 OCCUPIED OFFICES			Occupancy: Occupied			
Physical:	NONE	0	Material Friability:	LOW	1	
Water:	MINOR	1	Occupant Accessibility to ACM:	MODERATE	1	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	NONE	0	
Type ACM:	TSI NOT	1	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	> 51%	3	Occupied Facility:	< 9	1	
			Unoccupied Facility:	N/A OR < 1%	0	
		<hr/>	<hr/>		<hr/>	
		Total 8			Total	4
ACM Assessment Rating: E						

Functional Space Number:	2	INACTIVE ROOMS		Occupancy:	Unoccupied	
Physical:		NONE	0	Material Friability:	LOW	1
Water:		MINOR	1	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:		NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:		YES	3	Air Stream/Plenum:	NONE	0
Type ACM:		TSI ACCESSIBLE	2	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:		> 51%	3	Occupied Facility:	N/A	0
				Unoccupied Facility:	F GOOD	3
		Total		Total		4
ACM Assessment Rating:		D				

Functional Space Number:	3	BOILER ROOM, ATTIC, CRAWL SPACE		Occupancy: Unoccupied	
Physical:	MODERATE	3	Material Friability:	MODERATE	2
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	YES	3	Air Stream/Plenum:	NONE	0
Type ACM:	TSI NOT	1	Area of surface or damaged ACM:	10-100 LF	1
Percent Asbestos:	> 51 %	3	Occupied Facility:	N/A	0
			Unoccupied Facility:	F DAMAGED	5
		<hr/> <hr/>	<hr/> <hr/>		
		Total	10	Total	9
ACM Assessment Rating: C					

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 313				ELECT. MAINT. SHOP					
.....Location.....		.....Material.....			Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount					
RM-01	OFFICE	FT-01	NF	300	SF	<10	G	L	WATER DAMAGE
	OFFICE	CT-02	F	275	SF	10	D	M	
RM-01A	OFFICE	FT-01	NF	210	SF	<10	G	L	
	OFFICE	CT-02	F	210	SF	<10	G	M	
RM-03	OFFICE/STORAGE	FT-01	NF	182	SF	<10	G	L	
	OFFICE/STORAGE	FT-01	F	3	SF	<10	G	M	
RM-04	BAR (FORMER)	FT-02	NF	200	SF	<25	D	M	WATER DAMAGE UNDER TILE
	BAR (FORMER)	CT-05	F	450	SF	10	D	M	
	BAR (FORMER)	MA-01	NF	240	SF	<10	G	L	
	BAR (FORMER)	FI-01	F	5	EA	<10	G	M	
RM-05	BREAKROOM/STORA	FT-01	NF	135	SF	<10	G	L	
	GE BREAKROOM/STORA	CT-01	F	135	SF	<10	D	M	
RM-06	OFFICE	FT-01	NF	120	SF	<10	G	L	
RM-07	OFFICE	FT-01	NF	165	SF	<10	G	L	
RM-08	VACANT OFFICE	-				<10			NO SUSPECT ACM MATERIALS
RM-09	VACANT OFFICE	-				<10			NO SUSPECT ACM MATERIALS
RM-10	VACANT OFFICE	FT-07	NF	130	SF	>10	D	L	
RM-11	VACANT OFFICE	FT-06	NF	190	SF	>10	D	L	
RM-12	VACANT OFFICE	FT-06	NF	210	SF	>10	D	L	
RM-13	VACANT OFFICE	-				<10			
RM-14	VACANT OFFICE	-				<10			NO SUSPECT ACM MATERIALS
RM-15	OFFICE/STORAGE	FT-01	NF	180	SF	<10	G	L	
RM-16	OFFICE/STORAGE	FT-01	F	180	SF	<10	G	L	
	OFFICE/STORAGE	CT-01	F	180	SF	<10	G	M	
RM-17	LAUNDRY/STORAGE	-				<10			NO SUSPECT ACM MATERIALS
RM-18	MENS RESTROOM	FT-01	NF	145	SF	<10	G	L	
	MENS RESTROOM	CT-03	F	145	SF	<10	G	L	
RM-19	WOMENS RESTROOM	FT-01	NF	235	SF	<10	G	L	WATER DAMAGED & WARPED
	WOMENS RESTROOM	CT-04	F	235	SF	<10	G	M	
	WOMENS RESTROOM	FI-01	F	1	EA	<10	G	M	
RM-20	KITCHEN	FT-03	NF	200	SF	<10	G	L	
RM-21	BALLROOM	-				<10			
RM-22	CLOSET/FORMER RESTROOM	FT-02	NF	18	SF	<10	G	L	
RM-23	FORMER RESTROOM	FT-08	NF	56	SF	<10	G	L	
RM-24	FORMER RESTROOM	FT-04	NF	36	SF	<10	G	L	
Touch: F =Friable NF=Nonfriable			Extent: Percent of Damage				Potential: For Damage L=Low M=Moderate H=High		
Amount: SF=Square Feet LF=Linear Feet			Assess: G=Good D=Damaged S=Significantly Damaged						
Inspector:	HENDRICKSON, KAREN							Inspection Date:	01/15/93

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 313 ELECT. MAINT. SHOP									
Location.....		Material.....				Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount					
RM-28	STORAGE/WORKSHO P	FT-05	NF	400 SF	<25	S	M		MANY LOOSE AND BROKEN TILES
RM-29	HALLWAY	FT-01	NF	200 SF	<10	G	L		
RM-30	HALLWAY	FT-07	NF	3200 SF	<10	G	L		
RM-31	HALLWAY	MA-01	NF	155 SF	<10	G	L		CARPETING IN PLACE, COULD NOT ASSESS
RM-32	HALLWAY	FT-01	NF	130 SF	<10	G	L		
RM-33	HALLWAY	FT-01	NF	180 SF	<10	G	L		
RM-34	ATTIC	MM-01	NF	50 SF	10	D	M		DEBRIS LEFT FROM ABATEMENT
	ATTIC	MM-02	F		>25	S	H		
	ATTIC	MM-03	F		>25	S	H		
RM-35	STORAGE	-			<10				NO SUSPECT ACM MATERIALS
RM-36	FORMER RESTROOM	FT-09	NF	42 SF	<10	G	L		
RM-37	BOILER ROOM	CB-02	NF	1000 SF	<10	G	L		
	BOILER ROOM	FI-01	F	6 EA	<10	G	M		
EXTERIOR	CRAWL SPACE	PI-01	F	125 LF	>25	S	H		MOST PIPE WRAP DAMAGED BEYOND REPAIR
	ROOF	RM-01	NF	12500 SF	<10	G	M		TRANSITE TYPE PANELS
	WALLS	CB-01	NF	5000 SF	<10	G	L		
RM-25	STORAGE				NO SUSP				
RM-26	STORAGE				NO SUSP				
RM-27	STORAGE				NO SUSP				

Touch: F =Friable  
NF=Nonfriable  
Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage  
Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 01/15/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

Building Number: 313

ELECT. MAINT. SHOP

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENT BOARD	BLDG. SHINGLES EXTERIOR TRANSITE TYPE	0.50	I	M	N	Y	2063 2064 2065	EXTERIOR EXTERIOR EXTERIOR
CB-02		CEMENTOUS BOARD	0.50	I	M	N	Y	4010 4011 4012 4013	RM-37 RM-37 RM-37 RM-37
CT-01	CEILING TILE	12" X 12" WHITE W/DESIGN	0.50	I	M	Y	N	4003 4004 4005	RM-05 RM-05 RM-16
CT-02		12" X 12" WHITE SMOOTH	0.50	I	M	Y	N	4006 4007 4008	RM-01A RM-01 RM-01A
CT-03		2' X 2' NEW WHITE W/PINHOLES AND WORM TRACKS	0.50	I	M	Y	N	2052 2053 2054	RM-18 RM-18 RM-18
CT-04		2' X 2' WHITE SMOOTH OLDER	0.50	I	M	Y	N	2057 2058 2059	RM-19 RM-19 RM-19
CT-05		12" X 12" WHITE SHINEY	0.50	I	M	Y	N	2049 2050 2051	RM-04 RM-04 RM-04
FI-01	FITTING INSULATION	FITTINGS ON FIBERGLASS INSULATED PIPE RUNS	1.00	I	T	Y	Y	2060 2061 2062	RM-19 RM-03 RM-03
FT-01	FLOOR TILE	12" X 12" BROWN/BEIGE	0.25	I	M	N	N	2055 2056 4001 4002	RM-18 RM-18 RM-19 RM-19
FT-02		SINGLE SHEET VINYL-BEIGE/WHITE	0.25	I	M	N	N	2045 2044 4009	RM-04 RM-04 RM-22
FT-03		12" X 12" WHITE	0.25	I	M	N	N	2041 2042 2043	RM-20 RM-20 RM-20
FT-04		9" X 9" TAN	0.25	I	M	N	N	2019 2020 2021	RM-24 RM-24 RM-24
FT-05		9" X 9" GRAY	0.25	I	M	N	Y	2022 2023 2024 2025	RM-28 RM-28 RM-28 RM-28
FT-06		BROWN SINGLE SHEET RUBBER LIKE	0.25	I	M	N	N	2026 2027 2028	RM-12 RM-12 RM-11
FT-07		GREEN SINGLE SHEET RUBBER LIKE	0.25	I	M	N	N	2029 2030 2031	RM-10 RM-30 RM-30
FT-08		9" X 9" MARBLE GREEN TILE	0.25	I	M	N	Y	2032	RM-23

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 01/15/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 313	ELECT. MAINT. SHOP						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FT-08	FLOOR TILE	9" X 9" MARBLE GREEN TILE						2033 2034	RM-23 RM-23
FT-09		9" X 9" ROSE TILE	0.25	I	M	N	N	2035 2036 2037	RM-36 RM-36 RM-36
MA-01	MASTIC	CARPET MASTIC UNDER GREEN CARPET IN BAR	0.25	I	M	N	N	2046  2047 2048	RM-04  RM-04 RM-04
MA-02		CARPET MASTIC UNDER GREEN CARPET IN HALLWAY	0.25	I	M	N	N	2038  2039 2040	RM-31  RM-31 RM-31
MM-01	TAR PAPER	TAR PAPER IN ATTIC	0.13	I	M	N	N	4014A	ATTIC
MM-02	PIPE WRAP DEBRIS	DEBRIS IN ATTIC FROM FORMER ABATEMENT	1.00	I	T	Y	Y	4015A  4017A	ATTIC  ATTIC
MM-03			1.00	I	T	Y	N	4016A	ATTIC
PI-01	PIPE INSULATION	AIRCELL BENEATH BUILDING IN THE CRAWL SPACE AREA	0.50	I	T	Y	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 01/15/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
313	2019	027	AMOS	LT	1	ZFF
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2020	028	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2021	029	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2022	030	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	2023	031	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2024	032	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		4	
			CROCO	LT	1	
			TREACT	LT	1	
	2025	033	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		6	
			CROCO	LT	1	
			TREACT	LT	1	
	2026	034	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2027	035	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2028	001	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
313	2029	002	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2030	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2031	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2032	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		8	
			CROCO	LT	1	
			TREACT	LT	1	
	2033	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		8	
			CROCO	LT	1	
			TREACT	LT	1	
	2034	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		7	
			CROCO	LT	1	
			TREACT	LT	1	
	2035	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2036	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2037	010	AMOS	LT	1	ZFH
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2038	011	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
313	2038	011	TREACT	LT	1	ZFH
	2039	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2040	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2041	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2042	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2043	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2044	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2045	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2046		AMOS	LT	1	ZFF
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2047	019	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2048	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
313	2048	020	CROCO	LT	1	ZFF
			TREACT	LT	1	
	2049	021	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2050	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2051	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2052	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2053	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2054	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2055	001	AMOS	LT	1	ZEH
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2056	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2057	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2058	028	AMOS	LT	1	ZFG
			ANPHO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
313	2058	028	CHRY5	LT	1	ZFG
			CROCO	LT	1	
			TREACT	LT	1	
	2059	029	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2060	004	AMOS	LT	1	ZEH
			ANPHO	LT	1	
			CHRY5		25	
			CROCO	LT	1	
			TREACT	LT	1	
	2061	032	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY5		60	
			CROCO	LT	1	
			TREACT	LT	1	
	2062	033	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5		70	
			CROCO	LT	1	
			TREACT	LT	1	
	2063	005	AMOS	LT	1	ZEH
			ANPHO	LT	1	
			CHRY5		8	
			CROCO	LT	1	
			TREACT	LT	1	
	2064	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5		10	
			CROCO	LT	1	
			TREACT	LT	1	
	2065	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5		38	
			CROCO	LT	1	
			TREACT	LT	1	
	4001	030	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4002	031	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4003	034	AMOS	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY5=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
313	4003	034	ANPHO	LT	1	ZFG
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4004	035	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4005	036	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4006	001	AMOS	LT	1	ZED
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4007	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4008	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4009	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4010	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5		45	
			CROCO	LT	1	
			TREACT	LT	1	
	4011	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5		45	
			CROCO	LT	1	
			TREACT	LT	1	
	4012	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY5		45	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY5=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
313	4013	008	AMOS	LT	1	ZED
			ANPHO	LT	1	
			CHRY		45	
			CROCO	LT	1	
			TREACT	LT	1	
	4014A	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4015A	001	AMOS		60	ZEF
			ANPHO	LT	1	
			CHRY		5	
			CROCO	LT	1	
			TREACT	LT	1	
	4016A	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4017A	003	AMOS		10	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 313				ELECT. MAINT. SHOP			
Location .....Material.....				Cost Per	Expense	Response Action	
Code	Code	Description	Friable Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	PI-01	AIRCELL BENEATH BUILDING IN TH	Y	S	125 LF	19.00 LF	2375.00 Removal
	RM-01	SHINGLES TARS AND FELTS	N	G	12500 SF	N/A	Operations & Maintenance
	CB-01	BLDG. SHINGLES EXTERIOR TRANSI	N	G	5000 SF	N/A	Operations & Maintenance
RM-04	FI-01	FITTINGS ON FIBERGLASS INSULAT	Y	G	5 EA	N/A	Operations & Maintenance
RM-19	FI-01	FITTINGS ON FIBERGLASS INSULAT	Y	G	1 EA	N/A	Operations & Maintenance
RM-23	FT-08	9" X 9" MARBLE GREEN TILE	N	G	56 SF	N/A	Operations & Maintenance
RM-28	FT-05	9" X 9" GRAY	N	S	400 SF	4.00 SF	1600.00 Removal
RM-34	MM-02	DEBRIS IN ATTIC FROM FORMER AB	Y	S	50 SF	7.50 SF	375.00 Removal
RM-37	CB-02	CEMENTOUS BOARD	N	G	1000 SF	N/A	Operations & Maintenance
	FI-01	FITTINGS ON FIBERGLASS INSULAT	Y	G	6 EA	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	G	56 SF	\$ 0.00
FT	Floor Tile	S	400 SF	\$ 1600.00
PI	Pipe Insulation	S	125 LF	\$ 2375.00
FI	Fitting Insulation	G	12 EA	\$ 0.00
RM	Roofing Materials	G	12500 SF	\$ 0.00
CB	Cementous Board	G	6000 SF	\$ 0.00
MM	Misc. Materials	S	50 SF	\$ 375.00
				\$ 4350.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1-14-93

1. Project No. J3947.04 2. Project Name JPG- Task 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume in Liters Bldg #	7. Remarks (Samplers' Initials)	
2019	Bulk Asbestos	1-14-93	313	KAC. <del>00A222</del> BUS	
2020			313	KAC <del>00A223</del>	
2021			313	KAC <del>00A224</del>	
2022			313	KAC <del>00A225</del>	
2023			313	KAC <del>00A226</del>	
2024			313	KAC <del>00A227</del>	
2025			313	KAC <del>00A228</del>	
2026			313	KAC <del>00A229</del>	
2027			313	KAC <del>00A230</del>	
8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
Karen Combs	1-14-93	Asbestos	<del>Substance Call</del> DCL	1-18-93	Sample Receiving

*Signature*  
 1/20/93

ZFG

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

## CHAIN OF SAMPLE CUSTODY

1. Project No. J3947.042. Project Name JPG - Task 4
 Page 1 of 1  
 Date 1-14-93

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume in Liters Bldg #	7. Remarks (Sampler's Initials)	8. Relinquished By	Date	9. Received by and Company Name	Date	Department
2028	Bulk Asbestos	1-14-93	313	KAC	KAC				
2029				KAC	KAC				
2030				KAC	KAC				
2031				KAC	KAC				
2032				KAC	KAC				
2033				KAC	KAC				
2034				KAC	KAC				
2035				KAC	KAC				
2036				KAC	KAC				
2037				KAC	KAC				
2038				KAC	KAC				
2039				KAC	KAC				
Laurel Comber		1-14-93		Asbestos			Stephanie C. D. L. S. B.	1-18-93	Sample Receiving

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1-14-93

1. Project No. J3947.04 2. Project Name JP6 - Task 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume - In Liters - Bldg #	7. Remarks (Sampler's Initials)
2037	Bulk Asbestos	1-14-93	313	KAC CN 009970 SUB 1/20/93
2038				KAC / 00991
2039				KAC / 00992
2040				KAC / 00993
2041				KAC / 00994
2042				KAC / 00995
2043				KAC / 00996
2044				KAC / 00997
2045				KAC / 00998
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Laven Combs	1-14-93	Asbestos	Supervisor DCL	1-18-93
				Sample Receiving



SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1

Date 1-14-93

1. Project No. 53947.04      2. Project Name JPG - Task 4

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Bldg Bag	7. Remarks Sampler's Initials
2046	Bulk Asbestos	1-14-93	313	KAC CN 00913
2047				KAC 00914
2048				KAC 00915
2049				KAC 00916
2050				KAC 00917
2051				KAC 00918
2052				KAC 00919
2053				KAC 00920
2054				KAC 00921
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
R. S. H. [Signature]	1-14-93	Asbestos	[Signature] DCL SWS	1-18-93
				Sample Reception

Mark

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 1 of 1  
Date 1/15/93

1. Project No. J3947.04      2. Project Name JPG Task 004

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume BLDG- In Liters #	7. Remarks Inspector
2055	Bulk Asbestos	1/15/93	BLDG 313	KSH
2056				
2057				
2060				
2063				
2064				
2065				
8. Relinquished By,	Date	Department	9. Received by and Company Name	Department
K.S. Hahn	1-15-93	Asbestos	R. E. S. W.	Sample Control

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
Date           

1. Project No. J3947.04 2. Project Name JPG Task 0004/

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks	Inspector
2058	Bulk Asbestos	1/15/93	313	KSH	<del>00956</del> SW 1/2
2059	Bulk Asbestos	1/15/93	313	KSH	<del>00957</del>
4001	Bulk Asbestos	1/15/93	313	KSH	<del>00958</del>
4002	Bulk Asbestos	1/15/93	313	KSH	<del>00959</del>
2061	Bulk Asbestos	1/15/93	313	KSH	<del>00960</del>
2062	Bulk Asbestos	1/15/93	313	KSH	<del>00961</del>
4003	Bulk Asbestos	1/15/93	313	KSH	<del>00962</del>
4004	Bulk Asbestos	1/15/93	313	KSH	<del>00963</del>
4005	Bulk Asbestos	1/15/93	313	KSH	<del>00964</del>
8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
<i>[Signature]</i>	1-15-93	Asbestos	<i>[Signature]</i> PCL	1-18-93	Sample Receiving

ZED

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1/15/93

1. Project No. J3947.04 2. Project Name JPG Task 2004

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks	Inspector
4006	Bulk Asbestos	1/15/93	313		KSH
4007	Bulk Asbestos	1/15/93	313		KSH
4008	Bulk Asbestos				
4009					
4010					
4011					
4012					
4013					
4014					
8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
<i>R. S. [Signature]</i>	1-15-93	Asbestos	<i>R. S. [Signature]</i> DCL	1/14/93	Sample Control

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 1 of 1  
Date 1/15/93

1. Project No. J3947.04 2. Project Name JPLG Task 004

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume Building In Liters #	7. Remarks <i>Inspector</i>
40#5 JL	Bulk Asbestos	1/15/93	BIDG 313	KSH
40#6 JL	Bulk Asbestos	1/15/93		
40#7 JL	Bulk Asbestos	1/15/93	V	V
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
R.S. [Signature]	1-15-93	Asbestos	[Signature] C.B.C.	01/19/93 Sam & Control

# **BUILDING 314**

## **1.0 INTRODUCTION**

Building 314 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 314 floor plans. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents).

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction on concrete slab at grade.
- The building is unheated.
- The building area is 3,200 square feet.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.).
- No fireproofing or other structural coatings were observed.

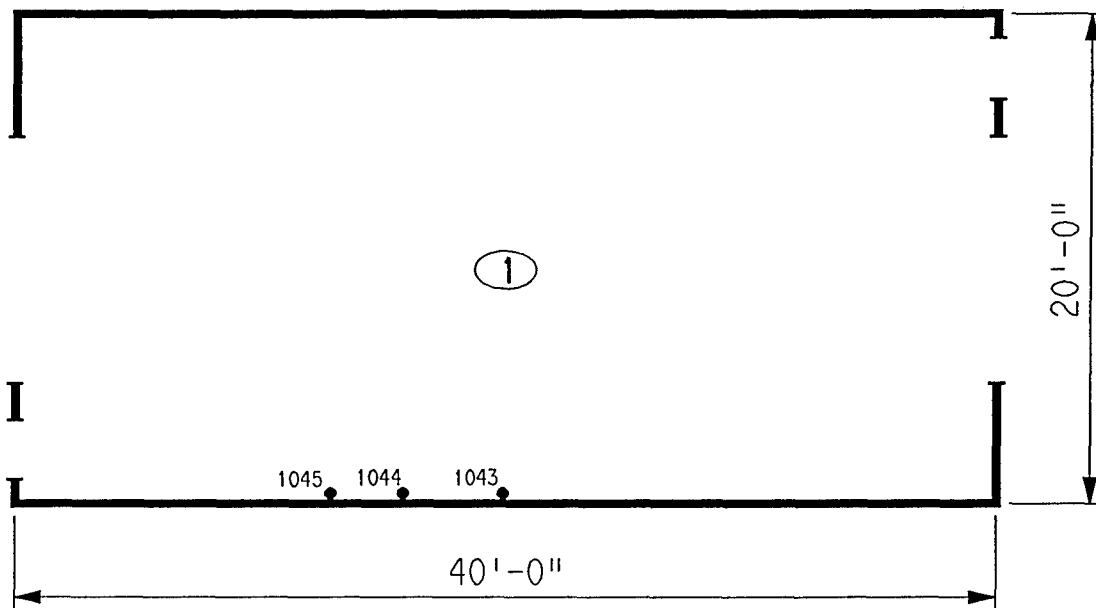
### **2.2 Building Use**

At the time of the inspection, the building was being used as a storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- None.

The damaged wallboard inside the building was sampled and was determined to be non-ACM.



#### LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)

(12) -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 314  
SAMPLE LOCATIONS

PROJECT No.

J3947.04

DRAWN BY: JKH

DATE: 05-05-93

SCALE: NTS

FILE: 3947AC62.DGN

SHT. OF

FIG.

# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 314		Exposure Assessment
----------------------	----------------------	--	------------------------

Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied		
Physical:	HIGH	5	Material Friability:	LOW	1
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	N/A OR < 1%	0
		<b>Total</b>	<b>Total</b>		
ACM Assessment Rating: F , no ACM		0		0	



*Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 314

GEN PURPOSE WHSE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
RM-01	STORAGE	WB-01	N	130 SF	>25	S	M	

Touch: F = Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

		Building Number: 314	GEN PURPOSE WHSE						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
WB-01	WALLBOARD	COVERED WITH BLACK PAPER-DAMAGED	0.62	I	M	Y	N	1043	RM-01
								1044	RM-01
								1045	RM-01

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
314	1043	017	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1044	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1045	019	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 314

GEN PURPOSE WHSE

Location	Material	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.

Grand Junction, Colorado 81506

Grand Junction, Colorado 81506

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
Date 1/14/93

1. Project No. J3947.04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks
1043		1/14/93	Bldg. 314	Sampler Initials
1044				7-B 009165
1045				7-B 009166
				7-B 009167
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
M. M. S. J. J. J.	1/14/93	Asbestos	<del>Asbestos</del> DCL	1-18-93
				Sample Receiving

## **BUILDING 320**

### **1.0 INTRODUCTION**

Building 320 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

### **2.0 BUILDING DESCRIPTION**

#### **2.1 Features**

- One-story concrete construction at grade with a built-up asphalt-based roof.
- The building area is 65 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

#### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house and was unoccupied.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 100 square feet of roofing tars and felts. These tars and felts were observed to be in good condition.

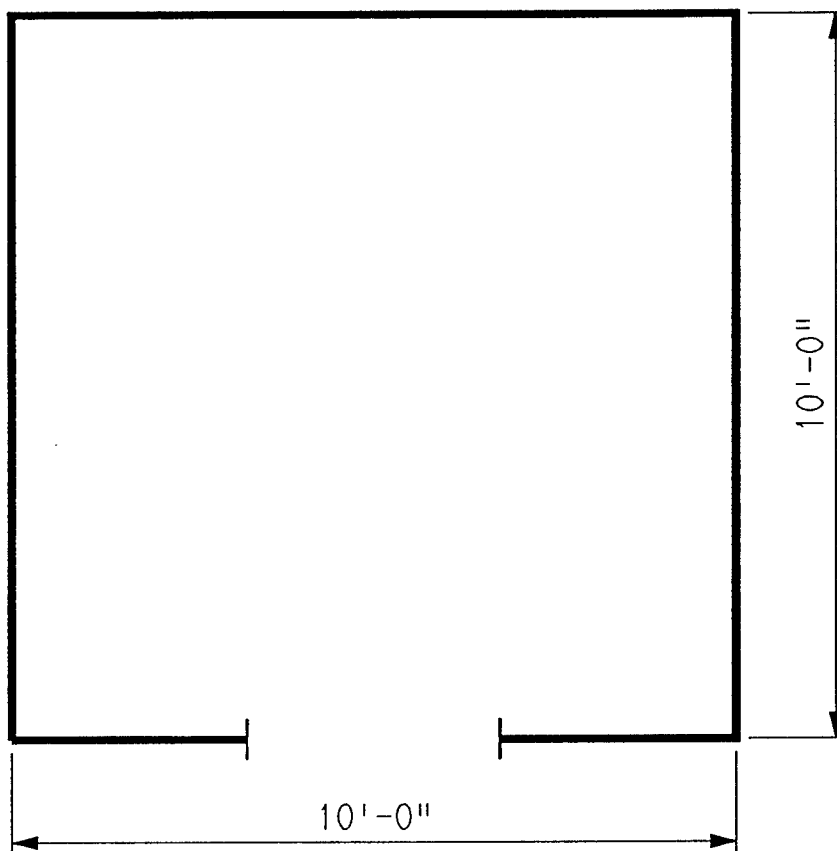
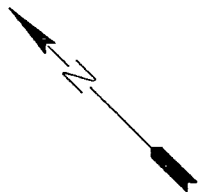
#### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### 5.0 ADDITIONAL COMMENTS

ACM was observed to be nonfriable and in good condition. This ACM is not considered to be a significant environmental concern.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)		LOCATION: Jefferson Proving Ground			
■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)		TITLE: BUILDING 320 BUILDING LAYOUT			
▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
7008 -SAMPLE NUMBER (TYPICAL)		J3947.04	DATE: 05-05-93	FILE: 3947AC63.DGN	FIG.
(12) -ROOM NUMBER (TYPICAL)					



# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>		<b>Building Number:</b> 320	<b>Exposure Assessment</b>	
--------------------------	--	-----------------------------	----------------------------	--

Functional Space Number: 1			CONCRETE IGLOO			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0			
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	MODERATE	2			
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	NONE	0			
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0			
			Unoccupied Facility:	NF GOOD	1			
		<b>Total</b>	<b>0</b>			<b>Total</b>	<b>0</b>	
ACM Assessment Rating: F								

# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
EXTERIOR	IGLOO STORAGE ROOF	RM-01	NF	100 SF	<10	G	L	TARS AND FELTS	
INTERIOR	IGLOO STORAGE	-			<10			NO SUSPECT ACM MATERIALS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/03/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 320

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Friable: Y=Friable  
N=Nonfriable

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Inspector: COMBS, KAREN

Inspection Date: 02/03/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 320		IGLOO STORAGE					
Location .....	Material.....	Cost Per Expense		Response Action			
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01	TARS AND FELTS	N	G	100 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense	Est.
RM	Roofing Materials	G	100 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 321**

## **1.0 INTRODUCTION**

Building 321 was inspected for ACM by Jeffrey R. Prescher (Indiana Building Inspector License No. 191923103) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick and wood frame construction at grade.
- The building is unheated.
- The building area is 106 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a transformer building.

### 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 100 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

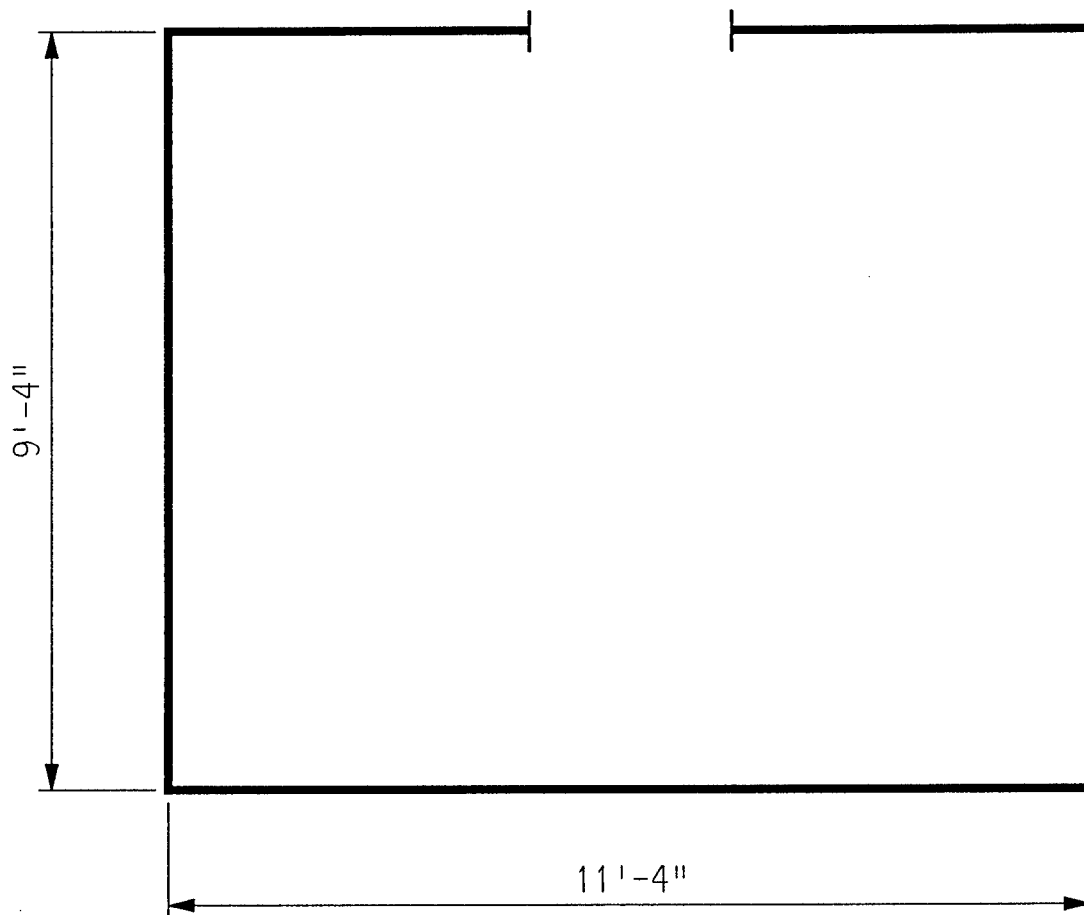
### 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS  
 ASSUMED ASBESTOS CEMENT BOARD INSULATORS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 321 BUILDING LAYOUT			
(12) -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
		J3947.04	DATE: 05-05-93	FILE: 3947AC64.DGN	FIG.

# ACM Assessment Rating Summary

<b>Damage Assessment</b>	<b>Building Number:</b> 321	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b> 1	<b>ENTIRE BUILDING</b>	<b>Occupancy:</b> Unoccupied
Physical:	NONE 0	Material Friability: NF 0
Water:	NONE 0	Occupant Accessibility to ACM: LOW 0
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: NONE 0
Pipe, Boiler, or Duct insulation:	NO 0	Air Stream/Plenum: ACM OCCASIONAL 2
Type ACM:	NF, GOOD 0	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	1-30 % 1	Occupied Facility: N/A 0
	Unoccupied Facility: NF GOOD 1	
<b>ACM Assessment Rating:</b> F	<b>Total</b> 0	<b>Total</b> 0



# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	ELECTRICAL COMPONENTS	MM-01	NF	<2 SF	<10	G	L	POSSIBLE TRANSITE TRANSFORMER INSULATORS	
EXTERIOR	ROOF	RM-01	NF	100 SF	<10	G	L	SHINGLES, FELTS, AND TARS	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: PRESCHER, JEFF

Inspection Date: 01/14/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 321

TRANSFORMER HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	TRANSITE INSULATORS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES FELTS AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: PRESCHER, JEFF

Inspection Date: 01/14/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 321

TRANSFORMER HOUSE

Location .....		Material.....		Cost Per Expense		Response Action	
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 SHINGLES FELTS AND TARS	N	G	100 SF	N/A	N/A	Operations & Maintenance
INTERIOR	MM-01 TRANSITE INSULATORS	N	G	<2 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	100 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 322**

## **1.0 INTRODUCTION**

Building 322 was inspected for ACM by Teri Bryan (Indiana Building Inspector License No. 197323123) of Rust E&I on January 14, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 322 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Brick and concrete construction on concrete slab at grade, containing 4,352 square feet.
- The building is heated by radiant steam via insulated steam supply and condensate return pipes originating from the building's boiler.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.) walls and ceilings, various styles of acoustical ceiling panels/tiles, and vinyl tiles or bare concrete floors.
- No fireproofing or structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

## 2.2 Building Use

At the time of inspection, the building was being used as an ammunition demolition facility. The offices and warehouse were considered occupied. The boiler room was considered unoccupied.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 400 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration, and poor condition with evidence of significant physical damage or material deterioration in the warehouse area (Room 3) and Room 7.
- 70 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration, and poor condition with evidence of significant physical damage or material deterioration in the warehouse area (Room 3) and Room 7.
- 75 linear feet of corrugated cardboard pipe insulation ("aircell"). This insulation was observed to be in fair to poor condition with evidence of physical damage or material deterioration in the warehouse (Room 3).
- 15 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in fair to poor condition with evidence of physical damage or material deterioration in the warehouse (Room 3).
- 200 square feet of 9" x 9" brown speckled vinyl floor tiles. These tiles were observed to be in good condition.
- 170 square feet of 12" x 12" green vinyl floor tiles. These tiles were observed to be in good condition.
- 170 square feet of 12" x 12" white vinyl floor tiles. These tiles were observed to be in good condition.
- 4,516 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

## 4.0 FUNCTIONAL SPACES

- #1 Boiler: **ACM Assessment Rating C**, there is localized damaged friable ACM in an infrequently visited area.

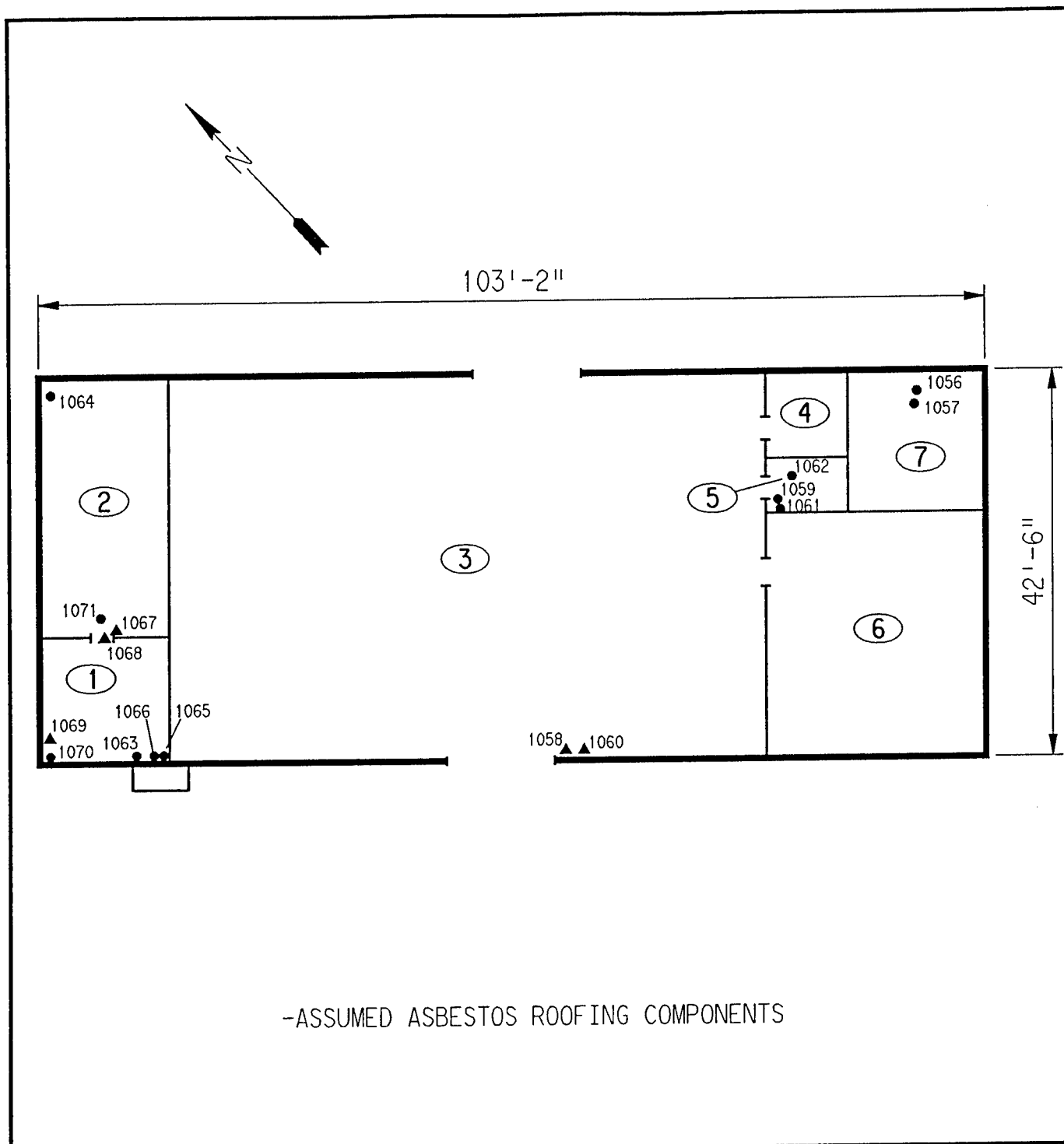
- #2 Rooms 1 and 2: **ACM Assessment Rating F**, there is no friable ACM in this occupied area.
- #3 Rooms 3, 4, 5, and 6: **ACM Assessment Rating B**, there is significantly damaged friable ACM in an occupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of C calls for a planned action to initiate a special O&M program. Removal should be scheduled as part of normal repair and maintenance of the facility. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change. An ACM assessment rating of B calls for action as soon as possible. A special O&M program must be initiated immediately. Possible follow-up actions may include limiting access to the area and scheduling of removal during periods of low activity in the facility, not waiting for the normal repair and maintenance cycle.

## **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the exception of pipe insulations in the warehouse area as described above. ACM pipe insulation in the warehouse area was observed to be extremely friable and in need of prompt response action. The remaining ACM pipe insulation was observed to be friable, but in better condition. The remaining ACM was nonfriable.

The manual operation of a valve in the boiler room produces damage to an adjacent pipe fitting insulation. This fitting insulation was identified by the inspector as damaged and in need of immediate repair. The inspector also rated the potential for future damage as "high" because the valve is in such close proximity to the fitting.



<b>LEGEND</b> <ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		CLIENT: USAEC	
7008 -SAMPLE NUMBER (TYPICAL)		LOCATION: Jefferson Proving Ground	
(12) -ROOM NUMBER (TYPICAL)		TITLE: BUILDING 322 SAMPLE LOCATIONS	
PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. 2 OF 2
J3947.04	DATE: 05-10-93	FILE: 3947AC65.DGN	FIG.

# ACM Assessment Rating Summary

Damage Assessment			Building Number: 322	Exposure Assessment		
<b>Functional Space Number: 1 BOILER</b>				<b>Occupancy: Unoccupied</b>		
Physical:	MODERATE	3		Material Friability:	HIGH	3
Water:	NONE	0		Occupant Accessibility to ACM:	MODERATE	1
Sprayed-on or Trowelled-on:	NO MAINT.	0		Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	YES	3		Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	TSI ACCESSIBLE	2		Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	> 51%	3		Occupied Facility:	N/A	0
				Unoccupied Facility:	F DAMAGED	5
			<b>Total 11</b>			<b>Total 12</b>
<b>ACM Assessment Rating: C</b>						
<b>Functional Space Number: 2 ROOMS 1 &amp; 2</b>				<b>Occupancy: Occupied</b>		
Physical:	MINIMAL	1		Material Friability:	NF	0
Water:	NONE	0		Occupant Accessibility to ACM:	HIGH	4
Sprayed-on or Trowelled-on:	NO MAINT.	0		Activity/Use:	MODERATE	2
Pipe, Boiler, or Duct insulation:	NO	0		Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0		Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30 %	1		Occupied Facility:	< 9	1
				Unoccupied Facility:	N/A OR < 1 %	0
			<b>Total 0</b>			<b>Total 0</b>
<b>ACM Assessment Rating: F</b>						
<b>Functional Space Number: 3 ROOMS 3,4,5,&amp;6</b>				<b>Occupancy: Occupied</b>		
Physical:	HIGH	5		Material Friability:	MODERATE	2
Water:	MAJOR	2		Occupant Accessibility to ACM:	MODERATE	1
Sprayed-on or Trowelled-on:	NO MAINT.	0		Activity/Use:	MODERATE	2
Pipe, Boiler, or Duct insulation:	YES	3		Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	TSI ACCESSIBLE	2		Area of surface or damaged ACM:	10-100 LF	1
Percent Asbestos:	> 51%	3		Occupied Facility:	< 9	1
				Unoccupied Facility:	N/A OR < 1 %	0
			<b>Total 15</b>			<b>Total 9</b>
<b>ACM Assessment Rating: B</b>						



# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 322		AMMO DEMOLOTION-EOD FAC.							
Location Code	Use	Material Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	BREAK	CT-01	F	12 SF	<10	G	L	PAINTED	
	BREAK	CT-02	F	200 SF	<10	G	L		
	BREAK	FT-01	NF	200 SF	<10	G	M		
	BREAK	WB-01	NF	400 SF	<10	G	M		
RM-02	OFFICE	WB-01	NF	360 SF	<10	G	M	PAINTED	
	OFFICE	FT-02	NF	170 SF	<10	G	M		
	OFFICE	FT-03	NF	170 SF	<10	G	M		
	OFFICE	CT-02	F	320 SF	<10	G	L		
RM-03	WAREHOUSE	PI-01	F	200 LF	>25	S	H	WATER DAMAGE-BAD REPAIR	
	WAREHOUSE	FI-01	F	30 EA	>25	S	H		
	WAREHOUSE	PI-02	F	75 LF	<25	D	H		
	WAREHOUSE	FI-02	F	15 EA	<25	D	H		
RM-04	MENS RESTROOM	PI-01	F	30 LF	<10	G	M	PAINTED	
	MENS RESTROOM	FI-01	F	4 EA	<10	G	M		
	MENS RESTROOM	WB-01	NF	70 SF	<10	G	M		
RM-05	WOMENS RESTROOM	WB-01	NF	70 SF	<10	G	M	PAINTED	
	WOMENS RESTROOM	PI-01	F	50 LF	<10	G	M		
	WOMENS RESTROOM	FI-01	F	6 EA	<10	G	M		
RM-06	SUPPLY	PI-01	F	80 LF	<10	G	M	VALVE USE IS DAMAGING PIPE INSULATION AND NEEDS IMMEDIATE ATTENTION	
RM-07	BOILER	PI-01	F	40 LF	10	D	H		
EXTERIOR	ROOF	RM-01	NF	4516 SF	<10	G	L	SHINGLES, FELTS, AND TARS	
RM-06	SUPPLY	FI-01	F	20 EA	<10	G	M		

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

		Building Number: 322	AMMO DEMOLITION-EOD FAC.						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CT-01	CEILING TILE	2' X 2' WHITE CROWSFOOT	0.50	I	M	Y	N	1069	RM-01
CT-02		2' X 4' BEIGE	0.50	I	M	Y	N	1070 1071	RM-01 RM-02
FI-01	FITTING INSULATION	WHITE CHALKY	0.50	I	T	Y	Y	1057 1061	RM-07 RM-05
FI-02		ON AIRCELL	0.50	I	T	Y	Y	1060	RM-03
FT-01	FLOOR TILE	9" X 9" BROWN SPECKLED	0.25	I	M	N	Y	1065 1066	RM-01 RM-01
FT-02		12" X 12" GREEN	0.25	I	M	N	Y	1068	RM-02
FT-03		12" X 12" WHITE	0.25	I	M	N	Y	1067	RM-02
PI-01	PIPE INSULATION	WHITE CHALKY	0.50	I	T	Y	Y	1056 1059	RM-07 RM-05
PI-02		AIRCELL	0.50	I	T	Y	Y	1058	RM-03
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		
WB-01	WALLBOARD	PAINTED WALLBOARD	0.50	I	M	N	N	1062 1063 1064	RM-05 RM-01 RM-02

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: BRYAN, TERI

Inspection Date: 01/14/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
322	1056	001	AMOS	LT	1	ZFD
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1057	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1058	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		15	
			CROCO	LT	1	
			TREACT	LT	1	
	1059	004	AMOS		30	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	1060	005	AMOS		5	
			ANPHO	LT	1	
			CHRY		20	
			CROCO	LT	1	
			TREACT	LT	1	
	1061	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		40	
			CROCO	LT	1	
			TREACT	LT	1	
	1062	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1063	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1064	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1065	010	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY		6	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
322	1066	011	AMOS	LT	1	ZFG
			ANPHO	LT	1	
			CHRY		6	
			CROCO	LT	1	
			TREACT	LT	1	
	1067	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		4	
			CROCO	LT	1	
			TREACT	LT	1	
	1068	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		2	
			CROCO	LT	1	
			TREACT	LT	1	
	1069	014	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1070	015	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	1071	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

## ACM Corrective Action Expense and Response Action Recommendations

Building: 322

AMMO DEMOLITION-EOD FAC.

Location .....		Material .....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 SHINGLES, FELTS, AND TARS	N	G	4516 SF	N/A	N/A	Operations & Maintenance
RM-01	FT-01 9" X 9" BROWN SPECKLED	N	G	200 SF	N/A	N/A	Operations & Maintenance
RM-02	FT-02 12" X 12" GREEN	N	G	170 SF	N/A	N/A	Operations & Maintenance
	FT-03 12" X 12" WHITE	N	G	170 SF	N/A	N/A	Operations & Maintenance
RM-03	PI-01 WHITE CHALKY	Y	S	200 LF	19.00 LF	3800.00	Removal
	FI-01 WHITE CHALKY	Y	S	30 EA	32.00 EA	960.00	Removal
	PI-02 AIRCELL	Y	D	75 LF	19.00 LF	427.50	Repairs Followed by O&M
	FI-02 ON AIRCELL	Y	D	15 EA	32.00 EA	144.00	Repairs Followed by O&M
RM-04	PI-01 WHITE CHALKY	Y	G	30 LF	N/A	N/A	Operations & Maintenance
	FI-01 WHITE CHALKY	Y	G	4 EA	N/A	N/A	Operations & Maintenance
RM-05	PI-01 WHITE CHALKY	Y	G	50 LF	N/A	N/A	Operations & Maintenance
	FI-01 WHITE CHALKY	Y	G	6 EA	N/A	N/A	Operations & Maintenance
RM-06	PI-01 WHITE CHALKY	Y	G	80 LF	N/A	N/A	Operations & Maintenance
	FI-01 WHITE CHALKY	Y	G	20 EA	N/A	N/A	Operations & Maintenance
RM-07	PI-01 WHITE CHALKY	Y	D	40 LF	19.00 LF	228.00	Repairs Followed by O&M
	FI-01 WHITE CHALKY	Y	D	10 EA	32.00 EA	96.00	Repairs Followed by O&M

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FT	Floor Tile	G	540 SF	\$ 0.00
PI	Pipe Insulation	G	160 LF	\$ 0.00
PI	Pipe Insulation	D	115 LF	\$ 655.50
PI	Pipe Insulation	S	200 LF	\$ 3800.00
FI	Fitting Insulation	G	30 EA	\$ 0.00
FI	Fitting Insulation	D	25 EA	\$ 240.00
FI	Fitting Insulation	S	30 EA	\$ 960.00
RM	Roofing Materials	G	4516 SF	\$ 0.00
				\$ 5655.50

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 1 of 2  
Date 11/14/23

1. Project No. J3947, 04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume <sup>SITE</sup> In Liters	7. Remarks
1056		1/14/93	Bldg. 322	Sampler Initials TB 0094058
1057				TB 00941
1058				TB 00942
1059				TB 00943
1060				TB 00944
1061				TB 00945
1062				TB 00946
1063				TB 00947
1064				TB 00948
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
M. McCallum	1/14/93	Asbestos	Stephanie Dole DCL	1-18-93
				Sample Receiving

ms/20/23

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 2 of 2  
 Date 1/14/93

1. Project No. J3947.04 2. Project Name JPC<sub>3</sub>

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks
1065	1/14/93	1/14/93	Bldg. 32Z	Scrubber Initials TB EN 00944 SUBS 1/20/93
1066				TB 00950
1067				TB 00951
1068				TB 00952
1069				TB 00953
1070				TB 00954
1071				TB 00955
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
M. McFadden	1/14/93	Asbestos	Stephen DCL 0095	1-18-93
			876 ASU SUBS 1/20/93	Sample Receiving

# **BUILDING 323**

## **1.0 INTRODUCTION**

Building 323 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction

### **2.2 Building Use**

At the time of the inspection, the building was being used as an ammunition storage facility.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.



BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"><li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li><li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li><li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li></ul> 7008 -SAMPLE NUMBER (TYPICAL) <b>(12)</b> -ROOM NUMBER (TYPICAL)		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 323			
PROJECT No.		DRAWN BY:	SCALE:	SHT.	OF
J3947.04		JKH	NTS		
		DATE:	FILE:	FIG.	
		05-26-93	3947AC66.DGN		

# *ACM Assessment Rating Summary*

Damage Assessment	Building Number: 323	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1 IGLOO			Occupancy: Unoccupied		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0
			Unoccupied Facility:	N/A OR < 1%	0
		<hr/> <b>Total</b>			<hr/> <b>Total</b>
<b>ACM Assessment Rating:</b>		F , no ACM			0

*Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 323

IGLOO STORAGE

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	IGLOO STORAGE				< 10			NO SUSPECT ACM MATERIALS

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 323

IGLOO STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	IGLOO STORAGE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 323

IGLOO STORAGE

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Unit	Estimate	Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 324**

## **1.0 INTRODUCTION**

Building 324 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 4, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 324 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Wood frame construction at grade.
- The building is unheated.
- The building is uninsulated.
- The building interior is finished with a plaster ceiling.
- No fireproofing or other structural coatings were observed.
- The building exterior is covered with cement board ("Transite") siding and roofing shingles.

## **2.2 Building Use**

At the time of inspection, the building was being used as a flammable material storage facility and was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 750 square feet of cement board ("Transite") exterior wall siding. This siding was observed to be in generally good condition with minor areas of isolated damage.
- 525 square feet of cement board ("Transite") exterior roofing shingles. These were observed to be in generally good condition with minor areas of isolated damage.

## **4.0 FUNCTIONAL SPACES**

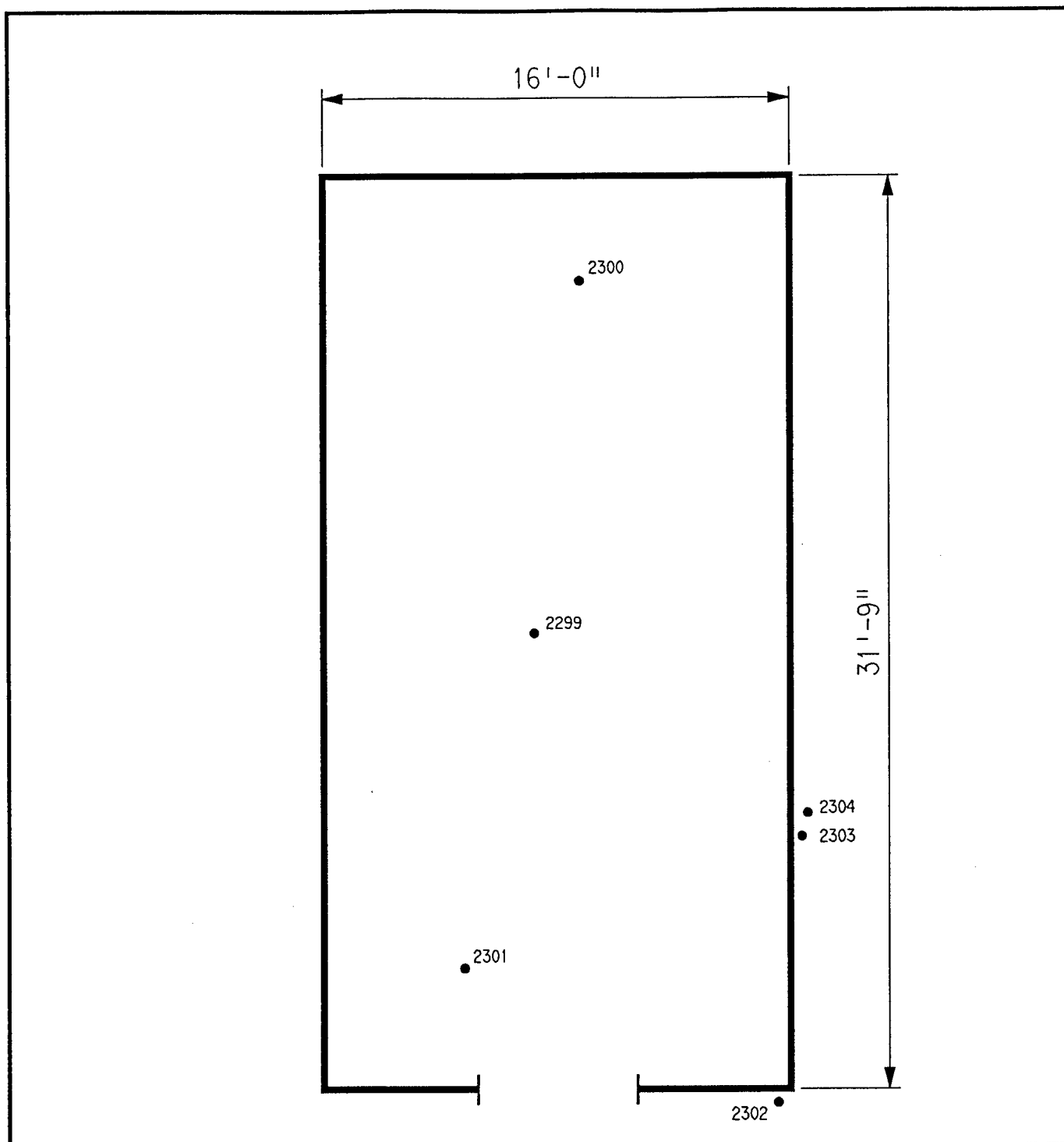
- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

## **5.0 ADDITIONAL COMMENTS**

The ACM observed was nonfriable.

The cement wallboard and the ceiling plaster were both sampled. The cement wallboard was ACM but is nonfriable. The ceiling plaster was determined to be non ACM.



<p>LEGEND</p> <ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul> <p>7008 -SAMPLE NUMBER (TYPICAL)</p> <p>(12) -ROOM NUMBER (TYPICAL)</p>		CLIENT: USAEC			
		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 324 SAMPLE LOCATIONS			
PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF		
J3947.04	DATE: 05-10-93	FILE: 3947AC67.DGN	FIG.		



# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 324</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy: Unoccupied</b>		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	31-50%	2	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<b>Total</b>		<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating:</b>	<b>F</b>				

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 324		FLAMMABLE MATLS. STORAGE							
Location Code	Use	Code	Material Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	FLAMM. MATLS. STORAGE	CP-01	NF	550 SF	<10	G	L		
EXTERIOR	FLAMM. MATLS. STORAGE ROOF	RM-01	NF	525 SF	<10	G	L	SHINGLES, FELTS, AND TARS	
	FLAMM. MATLS. STORAGE WALLS	CB-01	NF	750 SF	<10	G	L	TRANSITE TYPE WALL PANELS	

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

# *Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 324

FLAMMABLE MATLS. STORAGE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENTOUS WALLBOARD	TRANSITE TYPE WALL SIDING	0.50	I	M	N	Y	2302 2303 2304	EXTERIOR EXTERIOR EXTERIOR
CP-01	CEILING PLASTER	TROWLED ON SURFACING	0.50	I	S	N	N	2299 2300 2301	INTERIOR INTERIOR INTERIOR
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/04/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
324	2299	019	AMOS	LT	1	ZMG
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2300	020	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2301	021	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2302	022	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		20	
			CROCO	LT	1	
			TREACT	LT	1	
	2303	023	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	
	2304	024	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		50	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 324		FLAMMABLE MATLS. STORAGE					
Location .....	Material.....	Cost Per	Expense	Response	Action		
Code	Code Description	Friable Condition Amount	Unit	Estimate	Recommendation		
EXTERIOR	RM-01 SHINGLES, FELTS, AND TARS	N G	525 SF	N/A	N/A	Operations & Maintenance	
	CB-01 TRANSITE TYPE WALL SIDING	N G	750 SF	N/A	N/A	Operations & Maintenance	

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	525 SF	\$ 0.00
CB	Cementous Board	G	750 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

Page 1 of 1  
Date 2-2-53

## CHAIN OF SAMPLE CUSTODY

1. Project No. J3947.04

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks
2299	Bulk Asbestos	2-2-93	324	KAC
2300				KAC
2301				KAC
2302				KAC
2303				KAC
2304				KAC
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
[Signature]	2-2-93	Asbestos	[Signature] R/K	2/5/93 Sample Control

# **BUILDING 325**

## **1.0 INTRODUCTION**

Building 325 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on January 30, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 325 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete block construction on concrete slab at grade, containing 5,731 square feet.
- The building is heated and cooled by forced air ventilation originating from a separate ventilation room. Heat is transferred to the ventilation system via radiant steam provided by insulated supply and return pipes which originate from an external source.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.) walls, wood ceilings, and nonconductive vinyl/asphalt floor covering.
- The attic is insulated with blown-in cellulose material.
- No fireproofing or structural coatings were observed.
- The building roof is covered with built-up tars and felts.

## 2.2 Building Use

At the time of inspection, the building was being used as an ammunition manufacturing facility and was occupied by less than 10 people per day.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- 15 linear feet of white powdery pipe insulation ("white mag"). This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration
- 8 areas of packed "fitting" insulation on pipes otherwise insulated with white powdery material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 45 linear feet of corrugated cardboard ("aircell") pipe insulation. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration throughout in Room 14.
- 16 areas of packed "fitting" insulation on pipes otherwise insulated with corrugated cardboard material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration in Room 14.
- 17 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. This insulation was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 600 square feet of cement board ("Transite") exterior siding. This siding was observed to be in generally good condition with minor areas of isolated damage.
- 4,650 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.

## 4.0 FUNCTIONAL SPACES

- #1 Work Areas, Rooms 1 through 13: **ACM Assessment Rating D**, there is no significant damage to the friable ACM in this occupied area.
- #2 Office, Room 14: **ACM Assessment Rating E**, the ACM is in good condition in this occupied area.

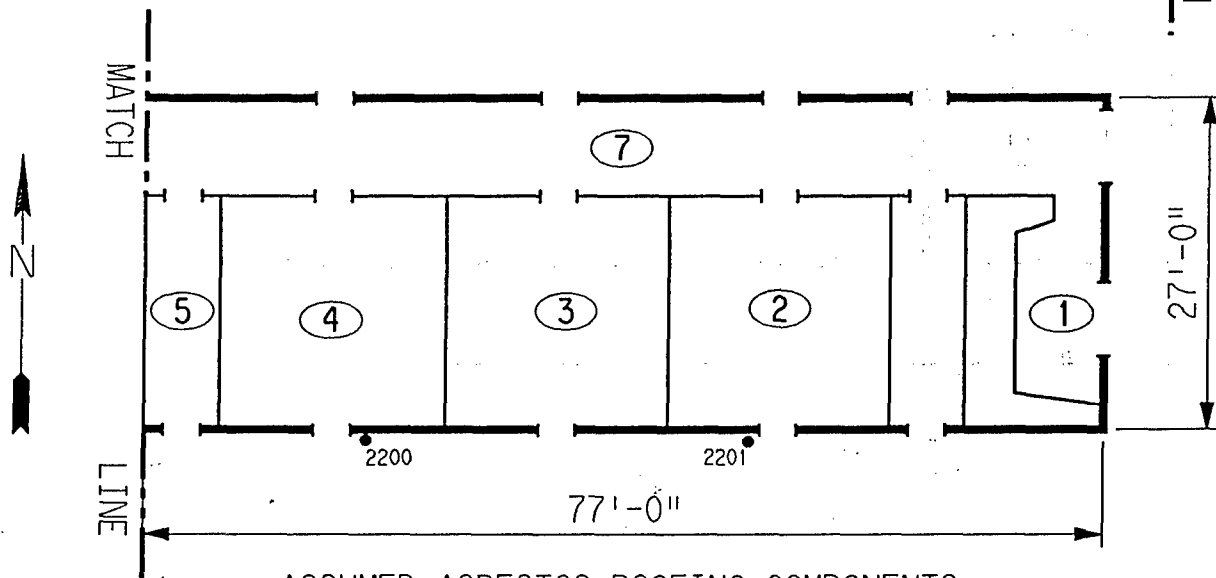
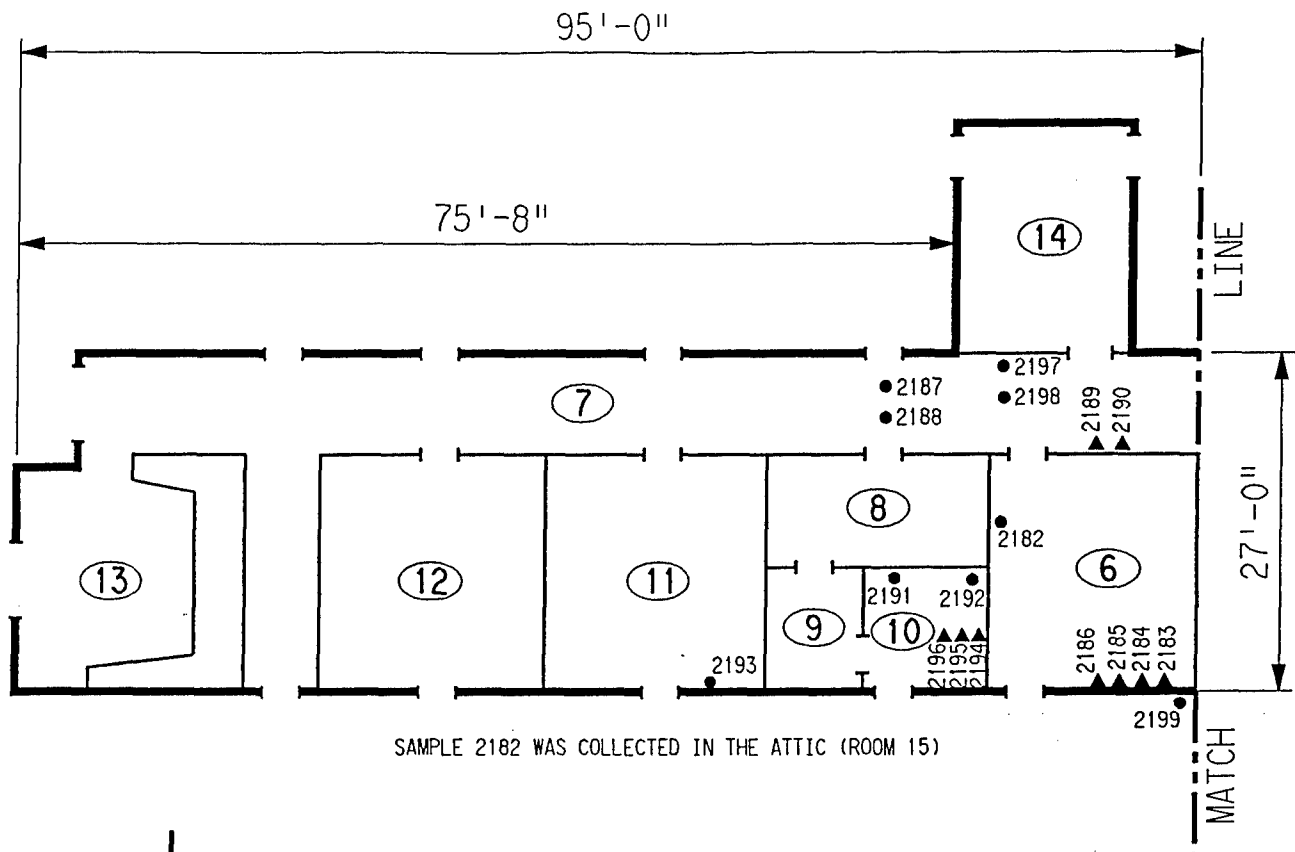
The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure



assessments. An ACM assessment rating of D calls for repair and initiation of a special O&M program. Damaged areas should be repaired, where "repair" means returning damaged ACM to an undamaged condition to contain fiber release. An ACM assessment rating of E calls for monitoring, while continuing a special O&M program. Steps must be taken to prevent damage to the ACM, and the condition of all ACM must be monitored frequently.

## **5.0 ADDITIONAL COMMENTS**

The general condition of ACM was observed to be good. ACM pipe insulations were observed to be friable and in need of minor repairs. The remaining ACM was observed to be nonfriable. The blown-in insulation in the attic was sampled and determined to be non-ACM. Because there was no ACM in the attic, it was not included in the functional space assessment.



### ASSUMED ASBESTOS ROOFING COMPONENTS

#### LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)

⑫ -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

BUILDING 325  
SAMPLE LOCATIONS

PROJECT No.

J3947.04

DRAWN BY: JKH

DATE: 05-10-93

SCALE: NTS

FILE: 3947AC68.DGN

SHT. OF

FIG.

# ACM Assessment Rating Summary

Damage Assessment	Building Number: 325	Exposure Assessment
----------------------	----------------------	------------------------

Functional Space Number: 1	WORK AREAS ROOMS 1 - 13	Occupancy: Occupied
Physical:	LOW 2	Material Friability: MODERATE 2
Water:	NONE 0	Occupant Accessibility to ACM: MODERATE 1
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: MODERATE 2
Pipe, Boiler, or Duct insulation:	YES 3	Air Stream/Plenum: NONE 0
Type ACM:	TSI ACCESSIBLE 2	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	> 51% 3	Occupied Facility: 10-200 2
		Unoccupied Facility: N/A OR < 1% 0
	<b>Total 10</b>	<b>Total 7</b>
ACM Assessment Rating: D		

Functional Space Number: 2	OFFICE ROOM 14	Occupancy: Occupied
Physical:	NONE 0	Material Friability: MODERATE 2
Water:	NONE 0	Occupant Accessibility to ACM: MODERATE 1
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: MODERATE 2
Pipe, Boiler, or Duct insulation:	YES 3	Air Stream/Plenum: NONE 0
Type ACM:	TSI ACCESSIBLE 2	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	> 51% 3	Occupied Facility: < 9 1
		Unoccupied Facility: N/A OR < 1% 0
	<b>Total 8</b>	<b>Total 6</b>
ACM Assessment Rating: E		

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 325 AMMUNITION ASSEMBLY FAC									
Location Code	Use	Code	Material Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	BARRICADE ROOM	MM-01	NF	135 SF	<10	G	L	RED FLOORING	
RM-02	AMMO WORK ROOM	MM-01	NF	330 SF	<10	G	L	RED FLOORING	
RM-03	AMMO DISASSEMBLY	MM-01	NF	330 SF	<10	G	L		
RM-04	AMMO WORK ROOM	MM-01	NF	330 SF	<10	G	L		
RM-05	EMERGENCY EXIT	MM-01	NF	80 SF	<10	G	L		
RM-06	UTILITY ROOM	PI-01	F	20 LF	<10	G	M	JACKET PAINT CRACKING-SLIGHT DAMAGE	
	UTILITY ROOM	FI-01	F	10 EA	<10	G	M	SLIGHT DAMAGE	
	UTILITY ROOM	PI-02	F	35 LF	<10	G	M	OPEN ENDS	
	UTILITY ROOM	FI-02	F	15 EA	<10	G	M		
RM-07	HALL	MM-01	NF	1280 SF	<10	G	L		
	HALL	PI-02	F	10 LF	<10	G	M		
	HALL	FI-02	F	2 EA	<10	G	M		
RM-08	HOT WATER ROOM	MM-01	NF	160 SF	<10	G	L		
RM-09	ACCESS ROOM	MM-01	NF	60 SF	<10	G	L		
RM-10	DUCT ROOM	MM-01	NF	100 SF	<10	G	L		
	DUCT ROOM	PI-03	F	15 LF	<10	G	M		
	DUCT ROOM	FI-03	F	8 EA	<10	G	M		
	DUCT ROOM	WB-01	F	160 SF	10	D	M	LOCALIZED DAMAGE	
RM-11	PARTS ROOM	WB-01	F	70 SF	<10	G	M		
	PARTS ROOM	MM-01	NF	330 SF	>25	S	M	WIDESPREAD SURFACE DAMAGE	
RM-12	AMMO DISASSEMBLY	MM-01	NF	330 SF	>25	S	M	WIDESPREAD SURFACE DAMAGE	
	AMMO DISASSEMBLY	WB-01	F	160 SF	10	D	M	LOCALIZED DAMAGE AREAS	
RM-13	BARRICADE ROOM	WB-01	F	180 SF	<25	D	M	PAINT CHIPPING OFF	
	BARRICADE ROOM	MM-01	NF	230 SF	10	D	M	SMALL AREAS OF DAMAGE	
RM-14	OFFICE	PI-01	F	25 LF	<10	G	M	OPEN ENDS	
	OFFICE	FI-01	F	6 EA	<10	G	M		
RM-15	ATTIC	MM-02	F	230 SF	<10	G	M	BLOWN-IN INSULATION	
EXTERIOR	ROOF	RM-01	NF	4650 SF	<10	G	L	TARS AND FELTS	
	ROOF	CB-01	NF	600 SF	<10	G	L	SMALL AREAS OF SHINGLES HAVE BEEN CRACKED	

Touch: F = Friable  
NF = Nonfriable

Amount: SF = Square Feet  
LF = Linear Feet

Extent: Percent of Damage

Assess: G = Good  
D = Damaged  
S = Significantly Damaged

Potential: For Damage  
L = Low  
M = Moderate  
H = High

Inspector: COMBS, KAREN

Inspection Date: 01/30/93

# Inspector's Summary of Homogeneous Areas of Suspect ACM

Building Number: 325

AMMUNITION ASSEMBLY FAC

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CB-01	CEMENTOUS BOARD	TRANSITE SHINGLES	0.50	I	M	N	Y	2199 2200 2201	EXTERIOR EXTERIOR EXTERIOR
FI-01	FITTING INSULATION	ON AIRCELL WHITE CRUMBLY	0.50	I	T	Y	Y	2184	RM-06
FI-02		ON FELT WRAP	0.50	I	T	Y	Y	2186 2190	RM-06 RM-07
FI-03	PIPE INSULATION	ON WHITE MAG	1.00	I	T	Y	Y	2194	RM-10
MM-01	COVERING	RED BRICKISH, FLOOR (ASPHALT LIKE)	0.50	I	M	N	N	2187 2188	RM-07 RM-07
MM-02	INSULATION	BLOWN-IN ATTIC	0.50	I	M	Y	N	2182	RM-15
PI-01	PIPE INSULATION	AIRCELL	0.50	I	T	Y	Y	2183	RM-06
PI-02		FELT WRAP	0.50	I	T	Y	N	2185 2189	RM-06 RM-07
PI-03		WHITE MAG	1.00	I	T	Y	Y	2195 2196	RM-10 RM-10
RM-01	ROOFING MATERIA	TARS AND FELTS	0.50	I	M	N	ASSUMED		
WB-01	WALLBOARD	WALL BOARD	0.50	I	M	Y	N	2191 2192 2193	RM-10 RM-10 RM-11
WB-02		CEILING BOARD	0.50	I	M	Y	N	2197 2198	RM-07 RM-07

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP=No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 01/30/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
325	2182	001	AMOS	LT	1	ZLD
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2183	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL		30	
			CROCO	LT	1	
			TREACT	LT	1	
	2184	003	AMOS		70	
			ANPHO	LT	1	
			CHRYL		2	
			CROCO	LT	1	
			TREACT	LT	1	
	2185	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2186	005	AMOS		70	
			ANPHO	LT	1	
			CHRYL		2	
			CROCO	LT	1	
			TREACT	LT	1	
	2187	006	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2188	007	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2189	008	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2190	009	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL		20	
			CROCO	LT	1	
			TREACT	LT	1	
	2191	010	AMOS	LT	1	ZLB
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRYL=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
325	2192	011	AMOS	LT	1	ZLB
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2193	012	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2194	013	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY		70	
			CROCO	LT	1	
			TREACT	LT	1	
	2195	014	AMOS		60	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2196	015	AMOS		60	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2197	016	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2198	017	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2199	018	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2200	027	AMOS	LT	1	ZLG
			ANPHO	LT	1	
			CHRY		25	
			CROCO	LT	1	
			TREACT	LT	1	
	2201	028	AMOS		4	
			ANPHO	LT	1	
			CHRY		28	
			CROCO	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
325	2201	028	TREACT	LT	1	ZLG

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRYS=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



## ACM Corrective Action Expense and Response Action Recommendations

Building: 325

AMMUNITION ASSEMBLY FAC

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR	RM-01 TARS AND FELTS	N	G	4650 SF	N/A	N/A	Operations & Maintenance
	CB-01 TRANSITE SHINGLES	N	G	600 SF	N/A	N/A	Operations & Maintenance
RM-06	PI-01 AIRCELL	Y	G	20 LF	N/A	N/A	Operations & Maintenance
	FI-01 ON AIRCELL WHITE CRUMBLY	Y	G	10 EA	N/A	N/A	Operations & Maintenance
	FI-02 ON FELT WRAP	Y	G	15 EA	N/A	N/A	Operations & Maintenance
RM-07	FI-02 ON FELT WRAP	Y	G	2 EA	N/A	N/A	Operations & Maintenance
RM-10	PI-03 WHITE MAG	Y	G	15 LF	N/A	N/A	Operations & Maintenance
	FI-03 ON WHITE MAG	Y	G	8 EA	N/A	N/A	Operations & Maintenance
RM-14	PI-01 AIRCELL	Y	G	25 LF	N/A	N/A	Operations & Maintenance
	FI-01 ON AIRCELL WHITE CRUMBLY	Y	G	6 EA	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
PI	Pipe Insulation	G	60 LF	\$ 0.00
FI	Fitting Insulation	G	41 EA	\$ 0.00
RM	Roofing Materials	G	4650 SF	\$ 0.00
CB	Cementous Board	G	600 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
743 Horizon Drive, Suite 240  
Grand Junction, Colorado 81506  
(303) 241-9612

Page 1 of 3  
Date 1-30-93

1. Project No. J 3947.04 2. Project Name JPG Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <i>blg</i>	7. Remarks
2182	Bulk Asbestos	1-30-93	325	KAC
2183				KAC
2184				KAC
2185				KAC
2186				KAC
2187				KAC
2188				KAC
2189				KAC
2190				KAC
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	1-30-93	Asbestos	Manan Dhan/DCL	2-2-93
				Sample Rec

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 2 of 3  
 Date 1-30-93

1. Project No. J3947.04 2. Project Name JR3 Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters <del>200</del>	7. Remarks <i>Samplers Initials</i>
2191	Bulk Asbestos	1-30-92	325	KAC
2192				KAC
2193				KAC
2194				KAC
2195				KAC
2196				KAC
2197				KAC
2198				KAC
2199				KAC
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
<i>[Signature]</i>	1-30-93	Asbestos	Maan Dan / DCL	2-2-93
				<i>Sample Rec</i>

SEC Donohue, Inc.

743 Horizon Drive, Suite 240

Grand Junction, Colorado 81506

(303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 3 of 3

Date 1-30-93

1. Project No. J3947, 04      2. Project Name JPG Task Order 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters Began No	7. Remarks
2200	Bulk Asbestos	1-30-93	325	KAC
2201	↓	↓	↓	KAC
8. Relinquished By	Date	Department	9. Received by and Company Name	Date Department
<i>[Signature]</i>	1-30-93	Asbestos	Moran Dean / DCL	2-2-93 Sample Rec

# **BUILDING 327**

## **1.0 INTRODUCTION**

Building 327 was inspected for ACM by Karen Combs (Indiana Inspector License No. 197623123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. No suspect ACM was identified.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Concrete construction.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a fuse and detonator facility and was unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- No suspect ACM.

BUILDING OUTLINE NOT AVAILABLE

NO SUSPECT ACBM

LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 327			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)	PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
7008	-SAMPLE NUMBER (TYPICAL)	J3947.04	DATE: 05-26-93	FILE: 3947AB97.DGN	FIG.
(12)	-ROOM NUMBER (TYPICAL)				

# ACM Assessment Rating Summary

Damage Assessment			Building Number: 327			Exposure Assessment		
Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Unoccupied					
Physical:	NONE	0	Material Friability:	NF	0			
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0			
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0			
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1			
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0			
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0			
			Unoccupied Facility:	N/A OR < 1%	0			
		<b>Total</b>	<b>0</b>	<b>Total</b>		<b>0</b>		
ACM Assessment Rating: F , no ACM								

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 327

FUSE & DETONATOR FAC

.....Location.....		.....Material.....			Extent	Assess	Potential	Notes
Code	Use	Code	Touch	Amount				
INT/EXT	FUSE & DETONATOR FACILITY				< 10			NO SUSPECT ACM MATERIALS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/10/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 327			FUSE & DETONATOR FAC						
Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
	FUSE/DET.MAGAZINE	NO SUSPECT MATERIALS	0.00			N	NOSUSP		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/10/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 327

FUSE & DETONATOR FAC

Location .....	Material.....	Cost Per	Expense	Response Action
Code	Code Description	Friable Condition Amount	Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
			\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 329**

## **1.0 INTRODUCTION**

Building 329 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story brick, concrete block, and wood frame construction on a concrete slab at grade.
- The building is unheated.
- The building area is 105 square feet.
- The building is uninsulated.
- The building interior is unfinished.
- No fireproofing or other structural coatings were observed.
- The building's roof is covered with cement board ("Transite") roofing shingles.

### **2.2 Building Use**

At the time of the inspection, the building was being used as a substation building.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 140 square feet of cement board ("Transite") exterior roofing shingles. These shingles were observed to be in generally good condition with minor areas of isolated damage.
- Less than 2 square feet of cement board ("Transite") electrical panel insulators. These insulators were either inaccessible for inspection or were observed to be in good condition.

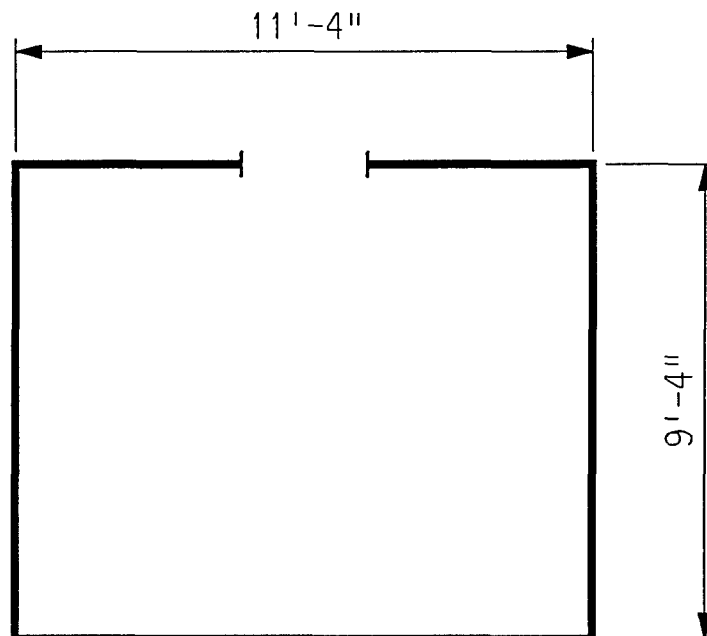
### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

### **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good with the noted exceptions above. ACM observed was nonfriable.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> <li>7008 -SAMPLE NUMBER (TYPICAL)</li> <li>(12) -ROOM NUMBER (TYPICAL)</li> </ul>		LOCATION: Jefferson Proving Ground			
		TITLE: BUILDING 329 BUILDING LAYOUT			
		PROJECT No. J3947.04	DRAWN BY: JKH	SCALE: NTS	SHT. OF
		DATE: 05-11-93	FILE: 3947AC70.DGN	FIG.	

### ACM Assessment Rating Summary

Damage Assessment		Building Number: 329		Exposure Assessment	
Functional Space Number:	1	TRANSFORMER HOUSE		Occupancy:	Unoccupied
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	NONE	0
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30 %	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		Total	0	Total	0
ACM Assessment Rating:		F			

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 329		SUBSTATION							
.....Location..... Code                      Use	.....Material..... Code    Touch    Amount	Extent	Assess	Potential	Notes				
EXTERIOR    ROOF	RM-01    NF       140    SF	<10	G	L	SHINGLES, TARS, AND FELTS				
INTERIOR    ELECTRICAL COMPONENTS	MM-01    NF       ?	<10	G	L	POSSIBLE TRANSITE INSULATORS				

Touch: F =Friable  
          NF=Nonfriable

Amount: SF=Square Feet  
          LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
          D=Damaged  
          S=Significantly Damaged

Potential: For Damage  
             L=Low  
             M=Moderate  
             H=High

Inspector:    COMBS, KAREN

Inspection Date:    02/10/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 329

SUBSTATION

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
MM-01	ELECTRICAL PANELS	TRANSITE INSULATORS	0.50	I	M	N	ASSUMED		
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/10/93



# ACM Corrective Action Expense and Response Action Recommendations

Building: 329

SUBSTATION

Location .....		Material.....		Cost Per		Expense	Response Action
Code	Code Description	Friable	Condition	Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01	SHINGLES, FELTS, AND TARS	N	G	140 SF	N/A	N/A	Operations & Maintenance
INTERIOR MM-01	TRANSITE INSULATORS	N	G	?	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.	
RM	Roofing Materials	G	140 SF	\$	0.00
				\$	0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 331**

## **1.0 INTRODUCTION**

Building 331 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on January 29, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 331 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete block construction on a concrete slab at grade.
- The building is heated via radiant steam supplied by insulated pipes, which originate from an external source.
- The building area is 711 square feet.
- The building is uninsulated.
- The building interior is finished with plasterboard ceilings.
- No fireproofing or other structural coatings were observed.
- The building roof is covered by tars and felts.

## **2.2 Building Use**

At the time of the inspection, the building was being used as a change house facility and was occupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 38 areas of packed "fitting" insulation on pipes otherwise insulated with felt-wrap material. These insulations were observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration.
- 725 square feet of roofing tars and felts. These tars and felts were observed to be in good condition.

## **4.0 FUNCTIONAL SPACES**

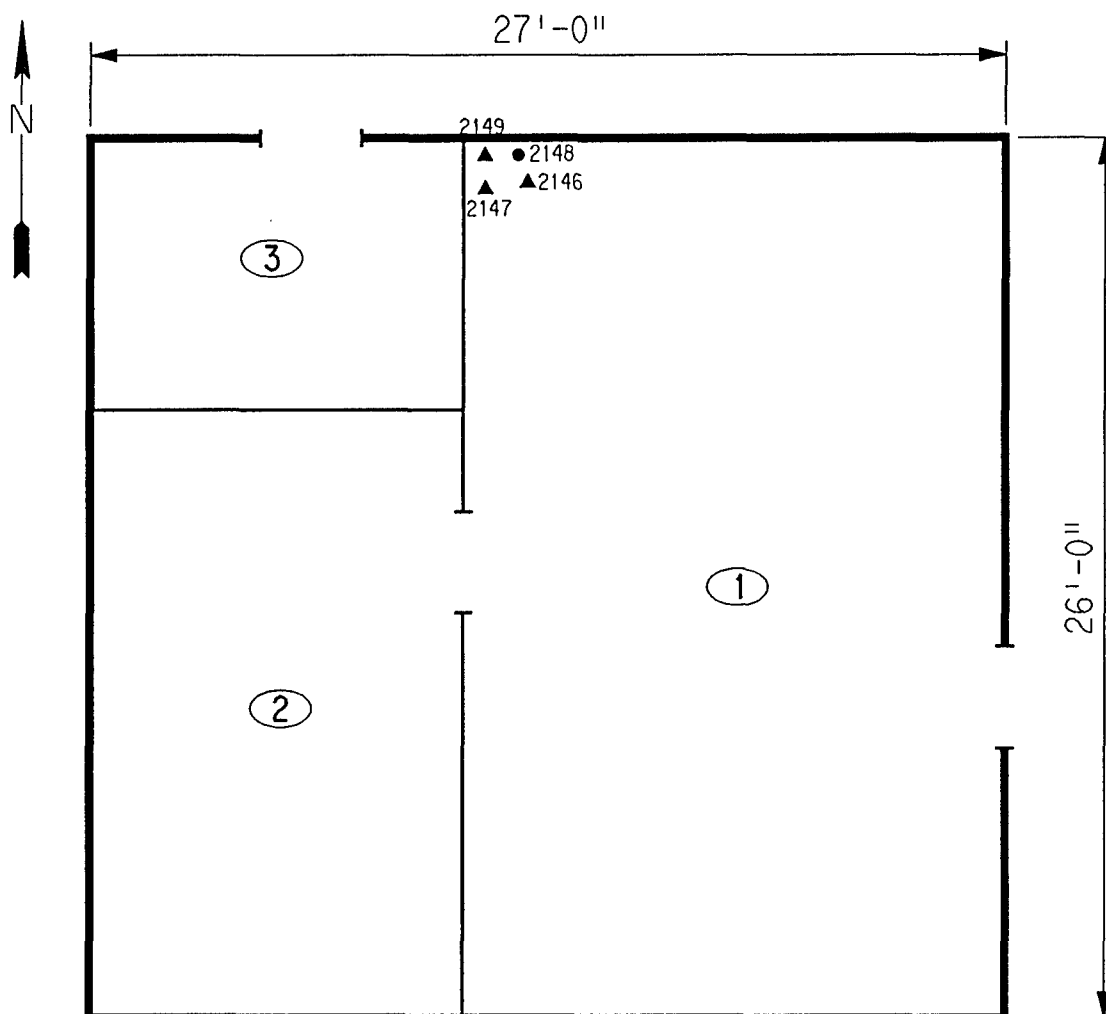
- #1 Entire Structure: **ACM Assessment Rating E**, there is only minor damaged friable ACM in this occupied area.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of E calls for monitoring, while continuing a special O&M program. Steps must be taken to prevent damage to the ACM, and the condition of all ACM must be monitored frequently.

## **5.0 ADDITIONAL COMMENTS**

The general condition of ACM present was observed to be good. ACM pipe insulation observed was friable, while the remaining ACM observed was nonfriable.

The felt wrap pipe insulation was sampled and the analytical results were negative; however, if the insulation is removed, it should be re-sampled prior to disposal to ensure that there is no asbestos present. Other felt wrap pipe insulations in many buildings were determined to be ACM.



# ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC	
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground	
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 331 SAMPLE LOCATIONS	
(12) -ROOM NUMBER (TYPICAL)		PROJECT No. J3947.04	DRAWN BY: JKH DATE: 05-11-93
		SCALE: NTS	SHT. OF
		FILE: 3947AC71.DGN	FIG.

# ACM Assessment Rating Summary

Damage  
Assessment

Building Number: 331

Exposure  
Assessment

Functional Space Number: 1 ENTIRE STRUCTURE

Occupancy: Occupied

Physical:	LOW	2
Water:	NONE	0
Sprayed-on or Trowelled-on:	NO MAINT.	0
Pipe, Boiler, or Duct insulation:	YES	3
Type ACM:	TSI ACCESSIBLE	2
Percent Asbestos:	1-30 %	1
<b>Total</b>		<b>8</b>

Material Friability:	MODERATE	2
Occupant Accessibility to ACM:	MODERATE	1
Activity/Use:	HIGH	3
Air Stream/Plenum:	NONE	0
Area of surface or damaged ACM:	< 10 LF	0
Occupied Facility:	< 9	1
Unoccupied Facility:	N/A OR < 1%	0
<b>Total</b>		<b>7</b>

ACM Assessment Rating: E

# Inspector's Room-by-Room Inventory Suspect ACM

Building Number: 331		CHANGE HOUSE							
Location.....		Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	BREAK ROOM	CP-01	NF	420	SF	<10	G	M	JACKET SPLIT
	BREAK ROOM	PI-01	F	30	LF	10	D	M	
	BREAK ROOM	FI-01	F	10	EA	<10	G	M	
RM-02	RESTROOMOM	FI-01	F	20	EA	<10	G	M	JACKET SPLIT IN SEVERAL LOCATIONS
	RESTROOMOM	PI-01	F	50	LF	10	D	M	
	RESTROOM	CP-01	NF	310	SF	<10	G	M	
RM-03	RESTROOM	CP-01	NF	90	SF	<10	G	M	
	RESTROOM	PI-01	F	12	LF	<10	G	M	
	RESTROOM	FI-01	F	8	EA	<10	G	M	
EXTERIOR	ROOF	RM-01	NF	725	SF	<10	G	L	SHINGLES, FELTS, AND TARS

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 01/29/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 331 CHANGE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
CP-01	CEILING PLASTER	WHITE PARTICLE BOARD LIKE	0.50	I	M	N	N	2148	RM-01
FI-01	FITTING INSULATION	GRAY FELT	0.50	I	T	Y	Y	2147 2149	RM-01 RM-01
PI-01	PIPE INSULATION		0.50	I	T	Y	N	2146	RM-01
RM-01	ROOFING MATERIALS	SHINGLES, FELTS, AND TARS	0.50	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 01/29/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
331	2146	024	AMOS	LT	1	ZKX
			ANPHO	LT	1	
			CHRYC	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2147	025	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYC		2	
			CROCO	LT	1	
			TREACT	LT	1	
	2148	026	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYC	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	2149	027	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYC		1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRYC=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material



## ACM Corrective Action Expense and Response Action Recommendations

Building: 331

CHANGE HOUSE

Location Code	Material Code	Description	Friable	Condition	Amount	Cost Per Unit	Expense Estimate	Response Action Recommendation
EXTERIOR	RM-01	SHINGLES, FELTS, AND TARS	N	G	725 SF	N/A	N/A	Operations & Maintenance
RM-01	FI-01	GRAY FELT	Y	G	10 EA	N/A	N/A	Operations & Maintenance
RM-02	FI-01	GRAY FELT	Y	G	20 EA	N/A	N/A	Operations & Maintenance
RM-03	FI-01	GRAY FELT	Y	G	8 EA	N/A	N/A	Operations & Maintenance

## TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
FI	Fitting Insulation	G	38 EA	\$ 0.00
RM	Roofing Materials	G	725 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

# CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1/29/93

1. Project No. J3947.04 2. Project Name JPG Task 004

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume Box In Liters #	7. Remarks Inspector	8. Relinquished By	Date	Department	9. Received by and Company Name	Date	Department
2146	Bulk Asbestos	1/29/93	BIDG 331	KAC						
2147										
2148										
2149										
2150 JL										
2151 JL										
2152 JL										
2153 JL										
2154 JL										
8. Relinquished By										
Xavier Combes	1-29-93	Asbestos	856-8346	2/1/93	Sa-pl. Contr.					

# **BUILDING 333**

## **1.0 INTRODUCTION**

Building 333 was inspected for ACM by Karen Hendrickson (Indiana Building Inspector License No. 197223123) of Rust E&I on January 31, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 333 floor plans. An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents). The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story metal frame construction on a concrete slab at grade.
- The building is unheated.
- The building area is 1,280 square feet.
- The building is uninsulated.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.) and metal walls, and wood ceilings.
- No fireproofing or other structural coatings were observed.
- The building roof is suspected to be covered by tars and felts.

## 2.2 Building Use

At the time of the inspection, the building was not being used. This building is occasionally used as an incinerator facility, but was considered unoccupied for purposes of exposure assessment.

## 3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS

- Less than 40 cubic feet of interior incinerator insulating components. These components were inaccessible for inspection, but are assumed to be in satisfactory condition and nonfriable.
- Less than 10 linear feet of incinerator gasket material. This material was observed to be in generally good condition with evidence of minor isolated physical damage or material deterioration. The material is considered nonfriable.
- 1,560 square feet of roofing tars and felts. These tars and felts were inaccessible for inspection, but were assumed to be in satisfactory condition and nonfriable.

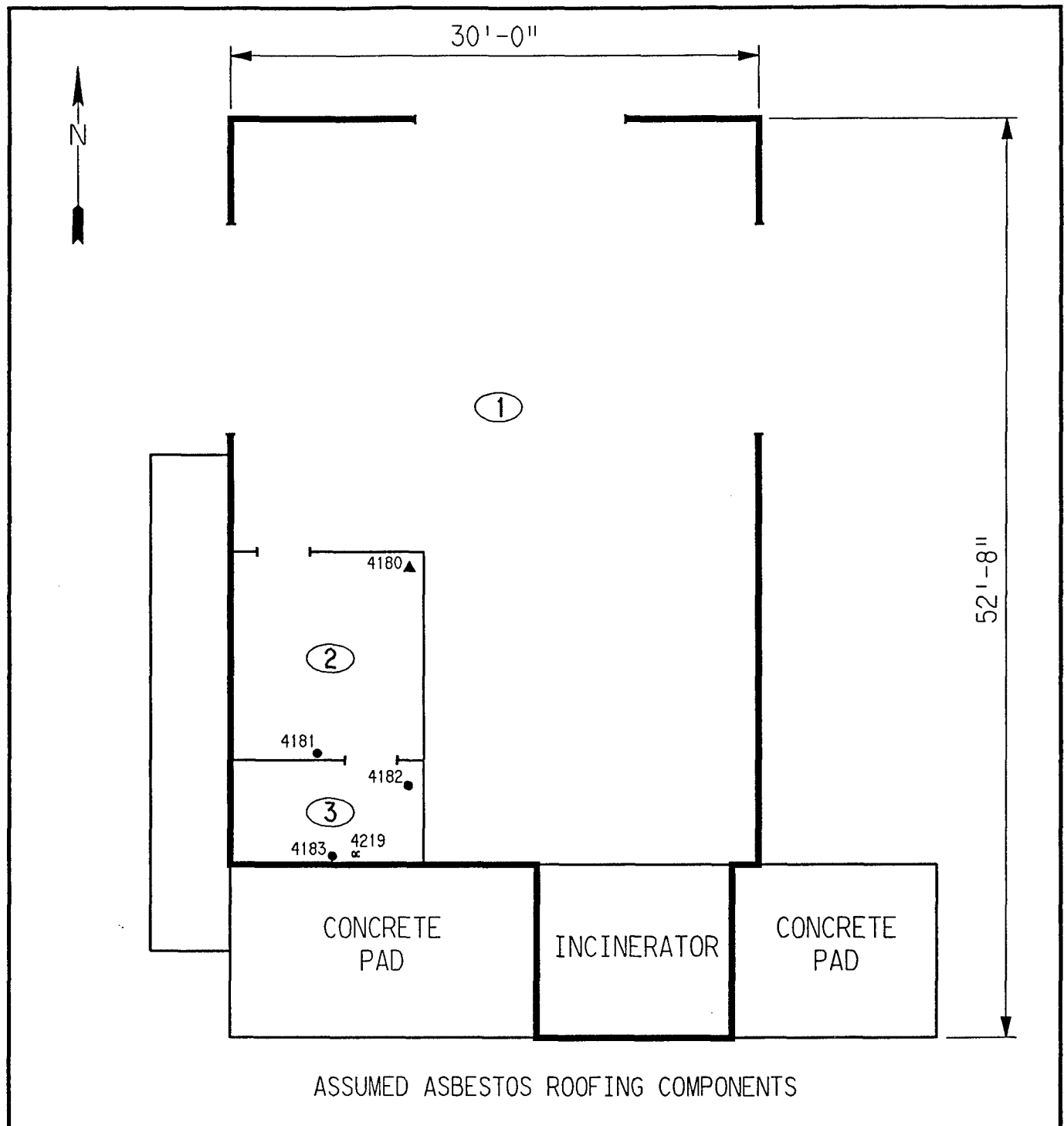
## 4.0 FUNCTIONAL SPACES

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

## 5.0 ADDITIONAL COMMENTS

The general condition of ACM present was observed to be good. ACM observed was nonfriable. The remaining ACM was inaccessible for inspection. The fitting insulation in Room 2 was sampled and determined to be non-ACM.



LEGEND		CLIENT: USAEC			
●	-MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)	LOCATION: Jefferson Proving Ground			
■	-SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)	TITLE: BUILDING 333 SAMPLE LOCATIONS			
▲	-THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)				
7008	-SAMPLE NUMBER (TYPICAL)	PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
12	-ROOM NUMBER (TYPICAL)	J3947.04	DATE: 05-11-93	FILE: 3947AC72.DGN	FIG.

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 333</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number:</b>	<b>1</b>	<b>ENTIRE BUILDING</b>	<b>Occupancy: Unoccupied</b>		
Physical:	NONE	0	Material Friability:	NF	0
Water:	NONE	0	Occupant Accessibility to ACM:	MODERATE	1
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	ACM OCCASIONAL	2
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0
Percent Asbestos:	1-30%	1	Occupied Facility:	N/A	0
			Unoccupied Facility:	NF GOOD	1
		<b>Total</b>		<b>Total</b>	<b>0</b>
<b>ACM Assessment Rating:</b>	<b>F</b>				

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 333 INCINERATOR BLDG.									
.....Location.....	.....Material.....								
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
RM-01	WAREHOUSE/GARAGE	BI-01	NF	?	<10			ASSUMED BOILER IS INSULATED WITH ACM-NOT ACCESSABLE (COVERED)	
	E								
RM-02	VACANT OFFICE	WB-01	NF	416 SF	<10	G	L		
	VACANT OFFICE	FI-01	F	1 EA	<10	D	M		
RM-03	RESTROOM	WB-01	NF	288 SF	<10	D	M		
EXTERIOR	INCINERATOR	GA-01	NF	<10 LF	<10	G	L	ASSUMED PRESENT IN THE GASKETS OF THE INCINERATOR ASSUMED	
	ROOF	RM-01	NF	1560 SF	<10	G	L		

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: HENDRICKSON, KAREN

Inspection Date: 01/31/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 333

INCINERATOR BLDG.

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
BI-01	BOILER INSULATION	GASKET OR INSULATION INSIDE SMALL HEATER	0.00		T	N	ASSUMED		
FI-01	FITTING INSULATION	ON FIBERGLASS RUN	1.00	I	T	Y	N	4180	RM-02
GA-01	GASKET INSULATION	GASKET ON INCINERATOR DOORS	0.00		M	N	ASSUMED		
RM-01	ROOFING MATERIALS	TARS AND FELTS	0.50	I	M	N	ASSUMED		
WB-01	WALLBOARD	WHITE DRYWALL TYPE	0.75	I	M	N	N	4181 4182 4183 4219	RM-02 RM-03 RM-03 RM-03

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: HENDRICKSON, KAREN

Inspection Date: 01/31/93



*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
333	4180	001	AMOS	LT	1	ZLF
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4181	002	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4182	003	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4183	004	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	4219	005	AMOS	LT	1	
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 333

INCINERATOR BLDG.

Location .....		Material.....				Cost Per	Expense	Response
Code	Code	Description	Friable	Condition	Amount	Unit	Estimate	Action
								Recommendation
EXTERIOR	GA-01	GASKET ON INCINERATOR DOORS	N	G	<10 LF	N/A	N/A	Operations & Maintenance
	RM-01	TARS AND FELTS	N	G	1560 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	1560 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

ZLF

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 1-30-93

1. Project No. J 3947.04 2. Project Name J P G - 5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volumes In Liters	7. Remarks
4180	Bulk Asbestos	1-30-93	333	
4181		1-30-93	333	
4182		1-30-93	333	
4183		1-30-93	333	
<del>4184</del> 44219	"	1-30-93	333	
<del>4185</del>				
4186				
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Bruce Lickler	1-30-93	Asbestos	Sharon Dean / OCL	2-2-93
				Sample Rec

# **BUILDING 401**

## **1.0 INTRODUCTION**

Building 401 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 401 floor plans. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents).

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Stone building with an area of 722 square feet.
- The building is unheated.
- The building is uninsulated.
- The building interior is finished with plaster.
- No fireproofing or other structural coatings were observed.
- The building's roof is wood shingles.

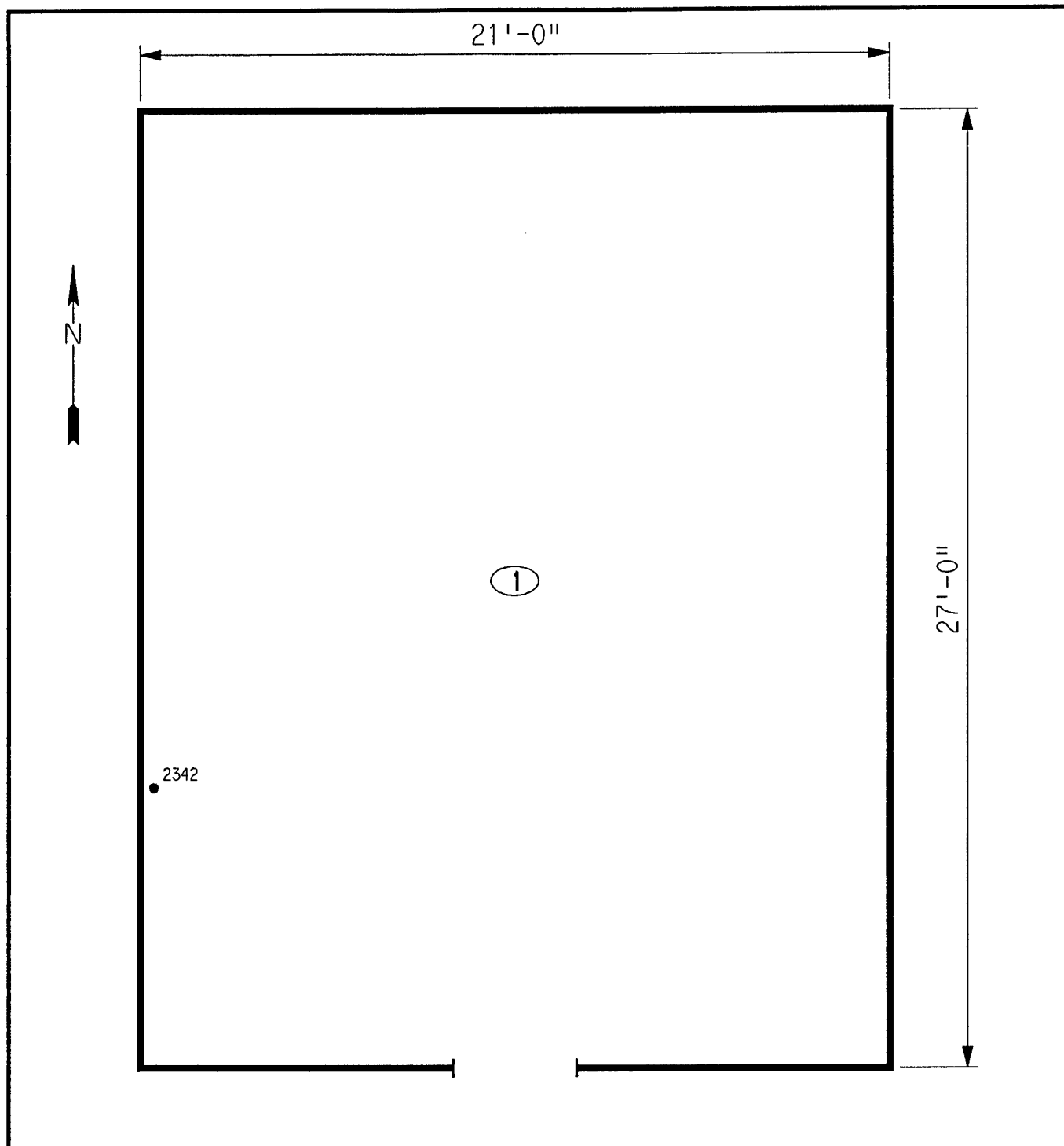
### **2.2 Building Use**

At the time of inspection, the building was not being used. At one time, this building was used as a school house and is of historic significance.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- None.

The wall plaster was sampled and was determined to be non-ACM.



LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL)		TITLE: BUILDING 401 SAMPLE LOCATIONS			
⑫ -ROOM NUMBER (TYPICAL)		PROJECT No.	DRAWN BY: JKH	SCALE: NTS	SHT. OF
		J3947.04	DATE: 05-11-93	FILE: 3947AC73.DGN	FIG.

### ACM Assessment Rating Summary

Damage Assessment			Building Number: 401		Exposure Assessment	
Functional Space Number: 1 SCHOOL HOUSE			Occupancy: Unoccupied			
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	LOW	0	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	LOW	1	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	N/A	0	
			Unoccupied Facility:	N/A OR < 1%	0	
		<b>Total</b>	<b>0</b>	<b>Total</b> 0		
ACM Assessment Rating: F , no ACM						

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 401		MUSEUM							
.....Location..... Code                  Use	.....Material..... Code  Touch  Amount	Extent	Assess	Potential	Notes				
INTERIOR  SCHOOLHOUSE MUSEUM	WP-01  NF      1000  SF	<10	G	L					
EXTERIOR  SCHOOLHOUSE MUSEUM	-	<10			NO SUSPECT ACM MATERIALS				

Touch: F =Friable NF=Nonfriable	Extent: Percent of Damage	Potential: For Damage L=Low M=Moderate H=High
Amount: SF=Square Feet LF=Linear Feet	Assess: G=Good D=Damaged S=Significantly Damaged	
Inspector:  COMBS, KAREN	Inspection Date:  02/10/93	



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 401 MUSEUM

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
WP-01	WALLPLASTER	TROWLLED ON SURFACING WALL PLASTER	0.50	I	S	N	N	2342	INTERIOR

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: COMBS, KAREN

Inspection Date: 02/10/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
401	2342	022	AMOS	LT	1	ZPQ
			ANPHO	LT	1	
			CHRY	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRY=Chrysotile;  
CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 401

MUSEUM

Location .....	Material.....	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

## CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
Date 2-9-93

1. Project No. J3947, 04 2. Project Name JPG-5

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume <sup>blks</sup> In Liters No.	7. Remarks
2342	Bulk Asbestos	2-9-93	401	
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
Paul Yick	2-9-93	Asbestos	Wm Dean (per)	2-15-93
				Amelia Ray

# **BUILDING 403**

## **1.0 INTRODUCTION**

Building 403 was inspected for ACM by Karen Combs (Indiana Building Inspector License No. 197623123) of Rust E&I on February 10, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." An ACM assessment rating was assigned using the ACM assessment checklist and ACM assessment index. The scoring for each functional space is shown immediately after the building floor plan. The "ACM Corrective Action Expense Estimates and Response Action Recommendations" provides a complete list of identified ACM. This table provides a budget-level removal-expense estimate and a recommendation for an appropriate response action for each identified ACM.

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- One-story concrete construction at grade, containing 78 square feet.
- The building is unfinished.
- No fireproofing or other structural coatings were observed.

### **2.2 Building Use**

At the time of inspection, the building was being used as a safe house and was considered unoccupied.

## **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- 70 square feet of roofing tars and felts. These tars and felts were observed to be in good condition.

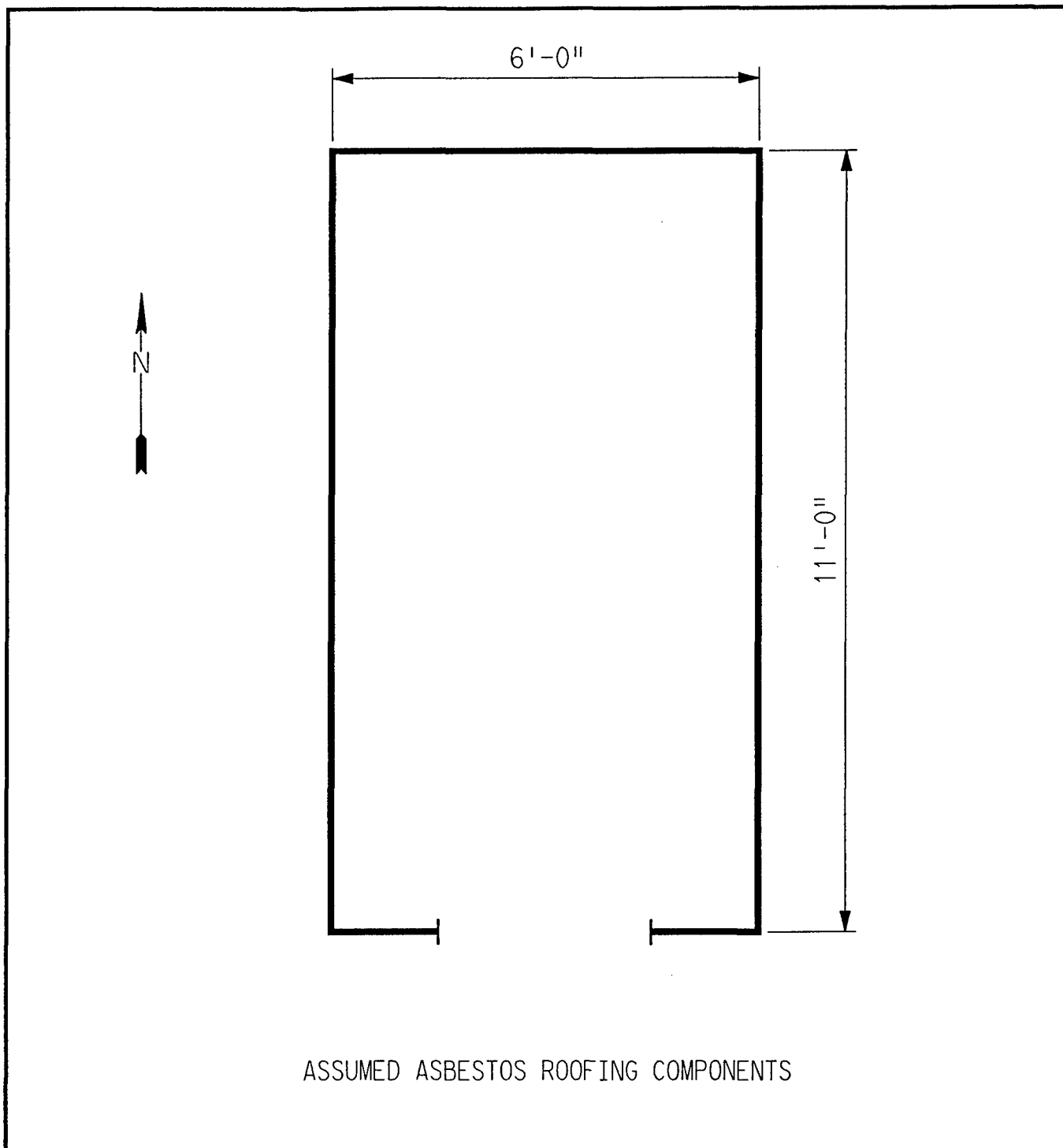
#### **4.0 FUNCTIONAL SPACES**

- #1 Entire Structure: **ACM Assessment Rating F**, there was no friable ACM present.

The "ACM Assessment Checklist" (Short Forms and Key), shown on page 19, provides an example of how the assessment rating was tabulated from the damage and exposure assessments. An ACM assessment rating of F calls for no immediate action and a continuation of a special O&M program until major renovation or demolition requires removal or until assessment factors change.

#### **5.0 ADDITIONAL COMMENTS**

ACM was observed to be nonfriable and in good condition.



ASSUMED ASBESTOS ROOFING COMPONENTS

LEGEND		CLIENT: USAEC			
<ul style="list-style-type: none"> <li>● -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)</li> <li>■ -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)</li> <li>▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)</li> </ul>		LOCATION: Jefferson Proving Ground			
7008 -SAMPLE NUMBER (TYPICAL) (12) -ROOM NUMBER (TYPICAL)		TITLE: BUILDING 403 BUILDING LAYOUT			
PROJECT No.		DRAWN BY: JKH	SCALE: NTS	SHT. OF	
J3947.04		DATE: 05-11-93	FILE: 3947AC74.DGN	FIG.	

# *ACM Assessment Rating Summary*

<b>Damage Assessment</b>	<b>Building Number: 403</b>	<b>Exposure Assessment</b>
------------------------------	-----------------------------	--------------------------------

<b>Functional Space Number: 1</b>	<b>SAFE SHELTER</b>	<b>Occupancy: Unoccupied</b>
Physical:	NONE 0	Material Friability: NF 0
Water:	NONE 0	Occupant Accessibility to ACM: LOW 0
Sprayed-on or Trowelled-on:	NO MAINT. 0	Activity/Use: NONE 0
Pipe, Boiler, or Duct insulation:	NO 0	Air Stream/Plenum: ACM OCCASIONAL 2
Type ACM:	NF, GOOD 0	Area of surface or damaged ACM: < 10 LF 0
Percent Asbestos:	1-30% 1	Occupied Facility: N/A 0
		Unoccupied Facility: NF GOOD 1
	<b>Total 0</b>	<b>Total 0</b>
<b>ACM Assessment Rating: F</b>		



# *Inspector's Room-by-Room Inventory Suspect ACM*

.....Location.....		.....Material.....							
Code	Use	Code	Touch	Amount	Extent	Assess	Potential	Notes	
INTERIOR	SAFE HOUSE				<10			NO SUSPECT ACM MATERIALS	
EXTERIOR	SAFE HOUSE ROOF	RM-01	NF	70 SF	<10	G	L	TAR ROOFING MATERIAL	

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: COMBS, KAREN

Inspection Date: 02/10/93

*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 403

SAFE HOUSE

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
RM-01	ROOFING MATERIAL	TAR	0.25	I	M	N	ASSUMED		

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

Friable: Y=Friable  
N=Nonfriable

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP=No Suspected Asbestos Containing Material

Inspector: COMBS, KAREN

Inspection Date: 02/10/93

ACM Corrective Action Expense and Response Action Recommendations

Building: 403

SAFE HOUSE

Location .....	Material.....	Cost Per	Expense	Response Action
Code      Code    Description	Friable Condition Amount	Unit	Estimate	Recommendation
EXTERIOR RM-01 TAR	N      G      70 SF	N/A	N/A	Operations & Maintenance

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
RM	Roofing Materials	G	70 SF	\$ 0.00
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

# **BUILDING 475**

## **1.0 INTRODUCTION**

Building 475 was inspected for ACM by Mike McGovern (Indiana Building Inspector License No. 197301501) of Rust E&I on February 9, 1993. The inspection approach implemented by Rust E&I is described in detail in the "Summary Report of Asbestos-Containing Materials: Jefferson Proving Ground" (September 3, 1993). This inspection included a visual survey of structural members and facility components during a walk-through of accessible rooms and/or areas of the building. Materials suspected to be ACM were identified in each room and/or area. They are listed in the "Inspector's Room-by-Room Inventory of Suspect ACM" and described in the "Inspector's Summary of Homogeneous Areas of Suspect ACM." Bulk material samples were subsequently collected for laboratory analysis. Sample locations are depicted on the enclosed Building 475 floor plans. Analytical results are provided in building-specific excerpts from "Report of Laboratory Analysis: Jefferson Proving Ground" (including chain-of-custody documents).

## **2.0 BUILDING DESCRIPTION**

### **2.1 Features**

- Metal frame construction at grade with a built-up asphalt-based roof.
- The building is unheated.
- The building is uninsulated.
- The building interior is finished with wallboard (i.e., sheetrock, drywall, gypsum board, etc.) walls and vinyl floor tiles.
- No fireproofing or other structural coatings were observed.

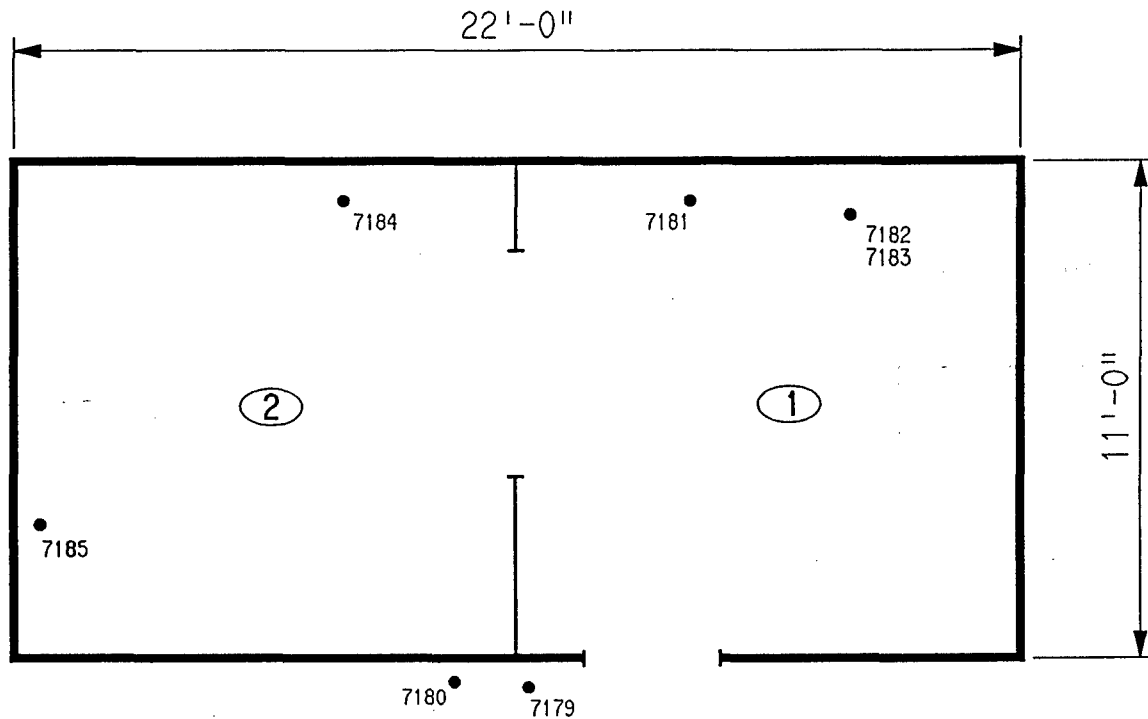
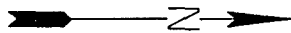
### **2.2 Building Use**

At the time of inspection, the building was being used regularly as the "Gator 'Z'" monitoring building.

### **3.0 SUMMARY OF ASBESTOS-CONTAINING MATERIALS**

- None.

The floor tile, wallboard, shingles, and roofing materials were all sampled and were determined to be non-ACM.



#### LEGEND

- -MISC. MATERIAL - FLOOR TILE, CEILING TILE, SIDING, ETC. (M)
- -SURFACING MATERIAL - TROWELED ON COMPOUNDS, WALL PLASTER, ETC. (S)
- ▲ -THERMAL SYSTEM INSULATION - FITTING AND PIPE INSULATION, ETC. (T)
- 7008 -SAMPLE NUMBER (TYPICAL)
- ⑫ -ROOM NUMBER (TYPICAL)

CLIENT:

USAEC

LOCATION:

Jefferson Proving Ground

TITLE:

**BUILDING 475  
SAMPLE LOCATIONS**

PROJECT No.

J3947.04

DRAWN BY:

JKH

SCALE:

NTS

SHT.

OF

DATE:

05-11-93

FILE:

3947AC75.DGN

FIG.

# *ACM Assessment Rating Summary*

Damage Assessment			Building Number: 475		Exposure Assessment	
Functional Space Number: 1 ENTIRE BUILDING			Occupancy: Occupied			
Physical:	NONE	0	Material Friability:	NF	0	
Water:	NONE	0	Occupant Accessibility to ACM:	MODERATE	1	
Sprayed-on or Trowelled-on:	NO MAINT.	0	Activity/Use:	MODERATE	2	
Pipe, Boiler, or Duct insulation:	NO	0	Air Stream/Plenum:	PRESENT W/ NO	1	
Type ACM:	NF, GOOD	0	Area of surface or damaged ACM:	< 10 LF	0	
Percent Asbestos:	< 1%	0	Occupied Facility:	< 9	1	
			Unoccupied Facility:	N/A OR < 1%	0	
		Total	0			
ACM Assessment Rating: F , no ACM				Total	0	

# *Inspector's Room-by-Room Inventory Suspect ACM*

Building Number: 475						GATOR Z AREA COMPUTER				
.....Location.....		.....Material.....				Extent	Assess	Potential	Notes	
Code	Use	Code	Touch	Amount						
RM-01	COMPUTER ROOM	FT-01	NF	100	SF	<10	G	M		
	COMPUTER ROOM	WB-01	F	280	SF	<10	D	M		
RM-02	COMPUTER ROOM	WB-01	F	280	SF	<10	D	M		
	COMPUTER ROOM	FT-02	NF	100	SF	<10	G	M		
EXTERIOR	COMPUTER ROOM	RM-01	NF	242	SF	<10	G	M	SHINGLES	
	ROOF									
	COMPUTER ROOM	RM-02	NF	242	SF	<10	G	M	FELT PAPER	
	ROOF									

Touch: F =Friable  
NF=Nonfriable

Amount: SF=Square Feet  
LF=Linear Feet

Extent: Percent of Damage

Assess: G=Good  
D=Damaged  
S=Significantly Damaged

Potential: For Damage  
L=Low  
M=Moderate  
H=High

Inspector: McGOVERN, MIKE

Inspection Date: 02/09/93



*Inspector's Summary of Homogeneous Areas of Suspect ACM*

Building Number: 475

GATOR Z AREA COMPUTER

Code	Name	Description	Depth	Units	Type	Friable	ACM	Sample Number(s)	Sample Location(s)
FT-01	FLOOR TILE	12" X 12" WHITE	0.25	I	M	N	N	7181	RM-01
FT-02		12" X 12" BEIGE	0.25	I	M	N	N	7185	RM-02
RM-01	ROOFING MATERIALS	SHINGLES	0.25	I	M	N	N	7179	EXTERIOR
RM-02		FELTS AND TARS	0.25	I	M	N	N	7180	EXTERIOR
WB-01	WALLBOARD	GYPSUM TYPE WALLBOARD	0.50	I	M	Y	N	7182 7183 7184	RM-01 RM-01 RM-02

Units: I=Inches  
F=Feet

Type: T=Thermal System Insulation  
S=Surfacing Material  
M=Miscellaneous Material

ACM: Y=Asbestos Containing Material  
N=Non Asbestos Containing Material  
ASSUMED=Assumed Asbestos Containing Material  
NOSUSP =No Suspected Asbestos Containing Material

Friable: Y=Friable  
N=Nonfriable

Inspector: McGOVERN, MIKE

Inspection Date: 02/09/93

*Report of Laboratory Analysis*

Bldg No.	Field Samp No.	Datachem Samp No.	Test Name	Measurement Boolean	Percent ACM	Lot
475	7179	028	AMOS	LT	1	ZPR
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7180	029	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7181	030	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7182	031	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7183	032	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7184	033	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	7185	034	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	
	PR7186	035	AMOS	LT	1	
			ANPHO	LT	1	
			CHRYL	LT	1	
			CROCO	LT	1	
			TREACT	LT	1	

Note: AMOS=Amosite; ANPHO=Anthophyllite; CHRYL=Chrysotile;  
 CROCO=Crocidolite; TREACT=Tremolite/Actinolite; LT=Less Than;  
 EQ=Equal To; GT=Greater Than; ACM=Asbestos Containing Material

ACM Corrective Action Expense and Response Action Recommendations

Building: 475

GATOR Z AREA COMPUTER

Location	Material	Cost Per Expense	Response Action
Code	Code Description	Friable Condition Amount Unit	Estimate Recommendation

TOTALS FOR BUILDING

Code	Description	Condition	Amount	Expense Est.
				\$ 0.00

NOTE: Friable means that the material, when dry, may be crumbled, pulverized, or reduced to powder using hand pressure; Y = Friable, N = Nonfriable. N/A = Not Applicable; refer to the Operations and Maintenance section of the Summary Report of Asbestos Containing Materials, Jefferson Proving Grounds. G = Good condition, <10% damage overall. D = Damaged condition, >10% but <25% damage overall. S = Significantly damaged Condition, >25% damage overall. LF = Linear feet, SF = Square feet, and EA = Each.

SEC Donohue, Inc.  
 743 Horizon Drive, Suite 240  
 Grand Junction, Colorado 81506  
 (303) 241-9612

CHAIN OF SAMPLE CUSTODY

Page 1 of 1  
 Date 2-9-93

1. Project No. 53947.04 2. Project Name JPG

3. Field Sample Number	4. Analysis Requested	5. Date Sample Collected	6. Air Volume In Liters	7. Remarks
7179	PLM - Bulk	2-9-93	Bldg. 475	MM
7180				MM
7181				MM
7182				MM
7183				MM
7184				MM
7185				MM
PR 7186				MM
8. Relinquished By	Date	Department	9. Received by and Company Name	Date
M. McQueen	2-9-93	Asbestos	Mark D. DCL	2-15-93

Sample Rec